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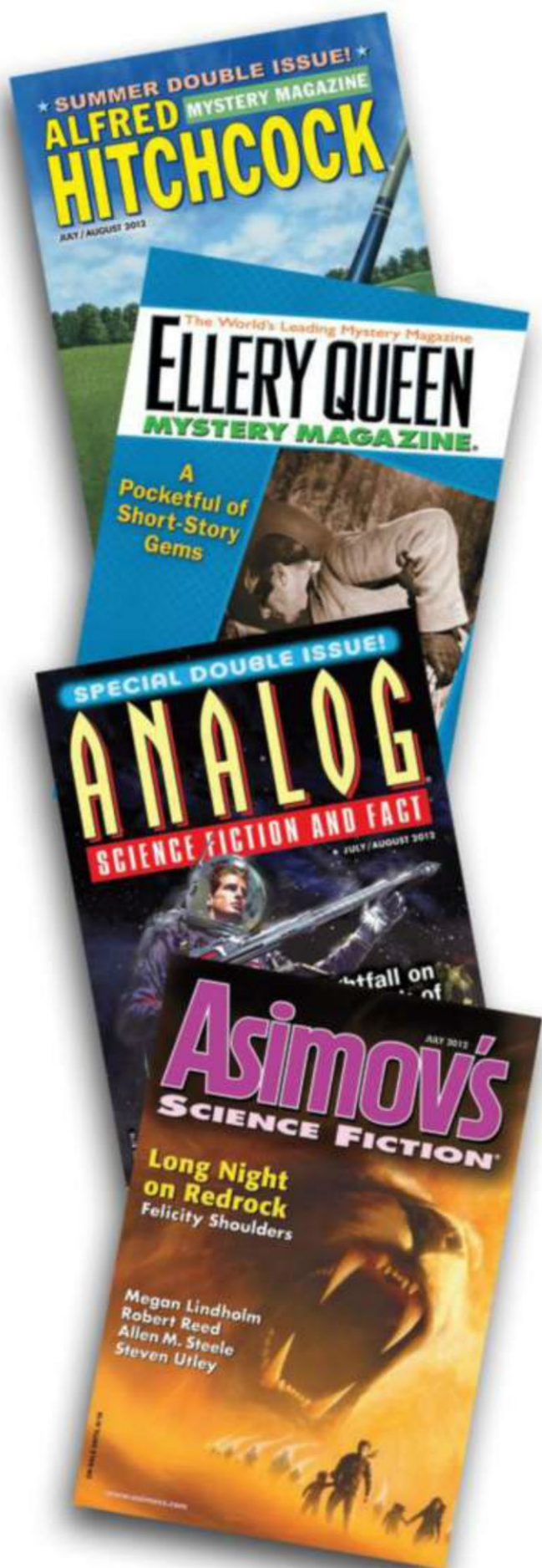
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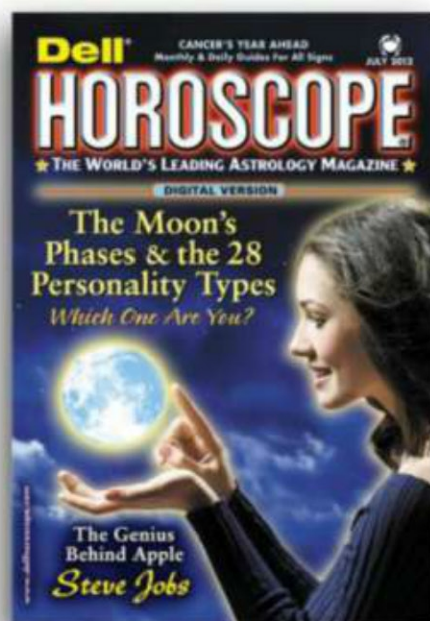




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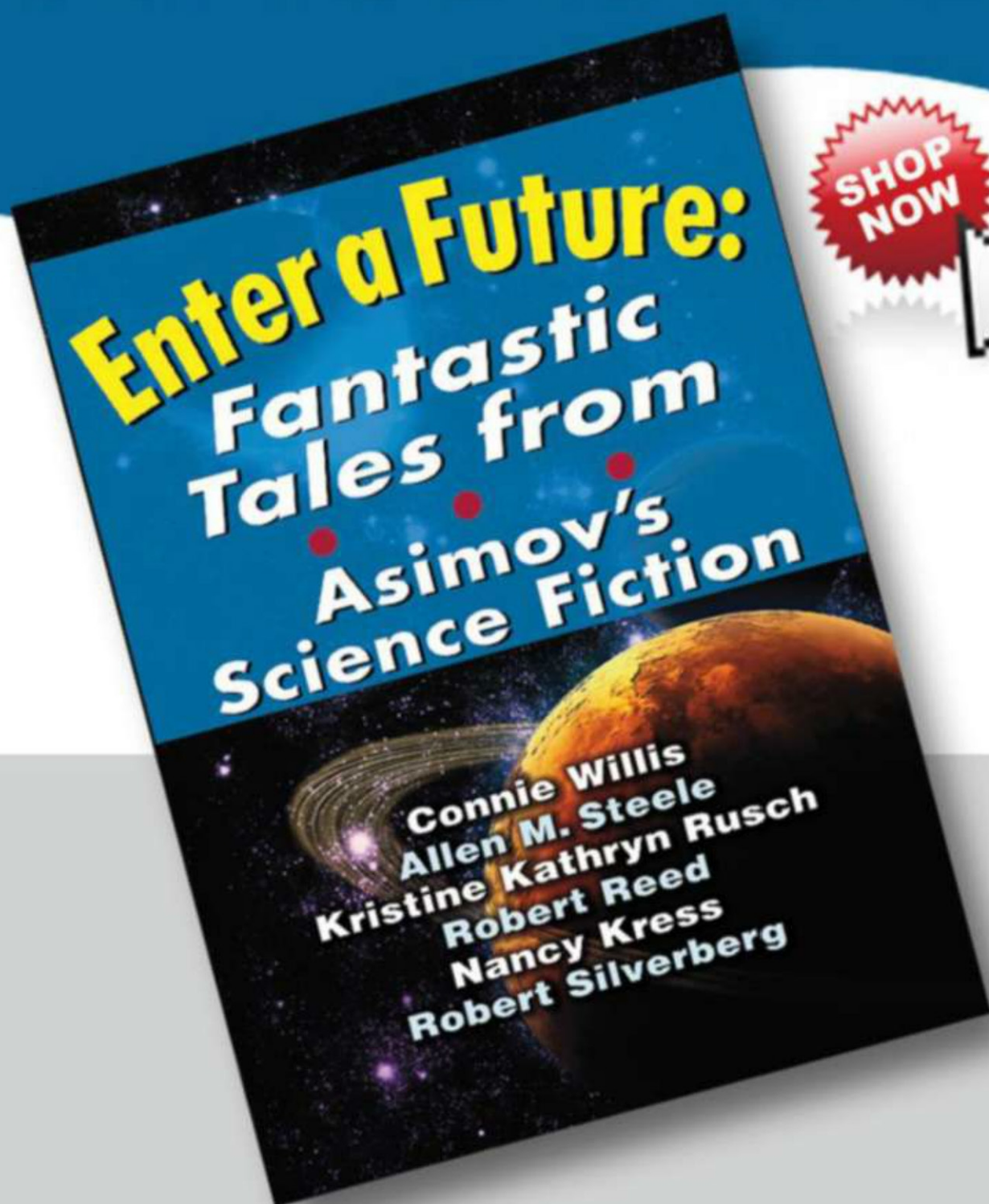
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Vol. 36 No. 12 (Whole Number 443)  
Next Issue on Sale November 6, 2012

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*Asimov's Science Fiction*. ISSN 1065-2698. Vol. 36, No. 12. Whole No. 443, December 2012. GST #R123293128. Published monthly except for two combined double issues in April/May and October/November by Dell Magazines, a division of Crosstown Publications. One year subscription \$55.90 in the United States and U.S. possessions. In all other countries \$65.90 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, 6 Prowitt Street, Norwalk, CT 06855. Allow 6 to 8 weeks for change of address. Address for all editorial matters: *Asimov's Science Fiction*, 267 Broadway, 4th Floor, New York, N.Y. 10007. *Asimov's Science Fiction* is the registered trademark of Dell Magazines, a division of Crosstown Publications. © 2012 by Dell Magazines, a division of Crosstown Publications, 6 Prowitt Street, Norwalk, CT 06855. All rights reserved, printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. Please visit our website, [www.asimovs.com](http://www.asimovs.com), for information regarding electronic submissions. All manual submissions must include a self-addressed, stamped envelope; the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at Norwalk, CT and additional mailing offices. POSTMASTER, send change of address to *Asimov's Science Fiction*, 6 Prowitt Street, Norwalk, CT 06855. In Canada return to Quad/Graphics Joncas, 4380 Garand, Saint-Laurent, Quebec H4R 2A3.

Printed by Quad/Graphics, Taunton, MA USA (9/10/12)



## MERRY ARMAGEDDON

One of my favorite novels from childhood is L. M. Montgomery's *The Story Girl*. Sarah Stanley, an orphan living on Canada's Prince Edward Island, spins tales that mesmerize and enchant her cousins. With their imaginations fired, the children come across an article in the newspaper about an American preacher who has announced that the world will end on August 12 at 2 p.m. They decide to die together out in the orchard. The children leave the front door to the house open so that they will hear the old grandfather clock toll the hour of their doom. The wait seems endless. Finally, one of the cousins returns home to investigate. She rushes back to let everyone know that the clock has stopped, it's actually 4, and her mother says they should all come in for tea.

This book, which was a gift from my grandmother, may have been my first exposure to the end of the world scenario, but it was certainly not my last. One New Year's Eve, I had to promise my husband (a computer programmer) that if we were going to party while it was still 1999, we would take the stairs when we returned to our apartment building. We hadn't actually succumbed to any millennial hysteria, and didn't think the nation's infrastructure was about to come apart, but my husband suffers a little from claustrophobia. He was worried about the strain of computer compliance on local utility companies and couldn't contemplate spending the rest of the night stuck in an elevator. It was a small price to pay for a fun evening out. I dutifully made my way up the stairs to the seventh floor, but as the perils of Y2K sputtered out, I found myself becoming even more sanguine about the end of life as we know it.

As I write this editorial on a hot summer day in July, the world is very much around me. I imagine that for you—reading this magazine in the late fall or early winter—the Earth's status won't have

changed much. Like me, you probably aren't particularly worried about the cataclysmic ending that has possibly been foretold by the Mayan Long Count calendar. These days, apocalyptic warnings are virtually a dime a dozen. The world could end in May or October. It could go out in the fire of midsummer or the ice of midwinter. All of these dates with destiny have been predicted at one time or another, yet the Earth keeps trundling along, ignorant of its doom.

Despite the Earth's indifference, science fiction writers can never quite restrain themselves from gifting us with the joy of total destruction. Time-honored ways to destroy the Earth or at least disrupt the lives of a sizable number of its inhabitants include natural disasters: epidemics, ice ages, floods, volcanoes, earthquakes, and lots of asteroids. Then there's the manmade kind: nuclear Armageddon, the next Y2K, over-population, pollution-poisoned atmosphere and waters, greenhouse gasses—the possibilities here are endless. Finally, there's the truly SFnal version: the alien invasion.

All of these scenarios do well in SF Filmland. Alien invasions have been covered from *The War of the Worlds* to *Independence Day*. Natural disasters, whether regional or worldwide, include the prosaically titled: *Earthquake*, *Volcano*, and *Meteor*. Movies with appellations that are almost as descriptive include *Deep Impact*, *Outbreak*, *When Worlds Collide*, *Contagion*, and *Armageddon*. Some end of the world, or end of society as we know it, films are not as immediately recognizable from their titles—*The Andromeda Strain*, *Testament*, *Melancholia*, *The Day of the Triffids*, *The Children of Men*, *I Am Legend*, *The Road*, *The Quiet Earth*, *On the Beach*—but the circumstances are just as disturbing. Most are released during the heat of the summer when everyone is ready for a rain of fire and the joy of air conditioning.



Some of these movies are moving and perceptive, but the majority treat the end of the world as a bit of a lark. No matter how many people are killed off, little attention is paid to collateral damage. All the survivors are worthy and they're in for a thrilling adventure. When I see movies like these, I tend to identify with the hardy survivors and on some level assume that I'll be in their band should disaster actually strike.

While there are books that face oncoming disasters as mindlessly as most movies, it's harder to get this distance in most science fiction novels and short stories. SF authors spend a lot of time on world building. Their disaster settings are usually far more convincing than the average film's. As a reader, I am privy to the inner thoughts of the characters, and see directly into their hearts and minds. A skillful author will ensure that I feel the losses and can easily imagine myself in similar harrowing situations, even when I despise the people in the story or have little or nothing in common with them. Somehow, the plot and the people in Greg Bear's *Blood Music* and James Tiptree, Jr.'s "The Last Flight of Dr. Ain" have stayed with me while I've completely forgotten characters and plot variations of typical disaster movies. I've been waiting for the crazed computer takeover since reading Harlan Ellison's "I Have No Mouth and I Must Scream" in my teens and Richard Cowper's "A Message to the King of Brobdingnag" has left me worried about experiments with crop yields ever since I read the story in a 1984 issue of *F&SF*. When Nancy Kress writes about the coming water wars or Connie Willis thrusts me in the middle of a plague, I find myself convinced, at least for a while, that the end is nigh.

If you want to have a nightmare before Christmas, forget about watching a disaster film or worrying about prophecies and ancient calendars. Go back to these devastating tales, pick up a novel that inspired an end-of-the-world movie, or read Jack McDevitt's *Moonfall*. You'll be giving yourself a gift that will last a lifetime. ○

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## LIBRARIES

I was always a reader—I had begun to master the knack of it before I turned four—and my parents saw that I was well supplied with books from an early age. (I still have some of them: *Tom Sawyer*, *Huckleberry Finn*, *The Complete Lewis Carroll*, *Ivanhoe*, *The Maltese Falcon*, a Rudyard Kipling omnibus, Padraic Colum's retellings of the Greek and Norse myths, and an assortment of books about dinosaurs, geology, botany, and astronomy, inscribed to me on various birthdays, dating from 1943, 1944, 1945.) My life as a science fiction writer, I'm certain, was constructed out of that hodgepodge of science and fantasy, the dinosaur/astronomy/geology books, the adventures of Odin and Thor, Zeus and Hermes, Carroll's two novels of Wonderland, and the rest.

But very quickly I learned that although I had an abundance of books at home, there was a marvelous place called the library that had even more, infinitely more, more books than I could possibly ever read even though I took an armload of them out every week. Which I did: the bookish child that I was helped himself constantly and abundantly from the library. I am still bookish even now, a diligent reader, and over the course of many decades I have built a vast library of my own, so that I need go no more than a few steps to lay my hands on any book I care to read. (And if I don't have it on the premises, the Internet makes it just a couple of clicks away.) So I rarely visit public libraries any more; but I cherish the memories I have of the libraries of yesteryear, public libraries and school libraries both, golden memories indeed. I think fondly back to the soft red-leather cushions of the window seats at my high school library, high above the streets of Brooklyn (1949-52), and the mysterious

infinite stacks of the Columbia University Library (1952-1956), but in particular I like to look backward in time to the libraries of the even earlier years when I was first beginning to develop my love of science fiction.

The public school I attended in my Brooklyn childhood from 1943 to 1946 had no library. But the junior high school that was the next stop for me—middle school, I guess they call it today—had not only a well-stocked library but a requirement that we spend a specific time, an hour or two a week, reading there. I remember a long room with wooden benches, at which we duly sat, turning pages. It was during my junior high school days that I discovered science fiction, but it's a safe bet that there was no SF in that school library, though I surely went looking for it. What I found instead—still vivid in my memory—were the boys' baseball novels of John R. Tunis, a popular series in the 1930s and 1940s about the exploits of (fictional) players for the Brooklyn Dodgers. Since I was a Brooklyn boy, the Dodgers were my team, of course—ancient history, now—and, eleven, twelve years old, I gobbled the Tunis books up. But also I recall reading Israel Zangwill's nineteenth-century novels of life in the Jewish ghetto of London, where my father was born, and R.D. Blackmore's *Lorna Doone*, a novel of which I can remember nothing except the fact of my having read it. And then there was Talbot Mundy's 948-page *Tros of Samothrace*, a historical novel with some touches of fantasy. These days I would hesitate and ponder before investing such a chunk of remaining lifespan as a 948-page book would demand, but at eleven, with all eternity stretching before me, I saw no problem about it at all. (This, perhaps, explains the willingness of today's young



to embark on the near-infinite expanse of the Harry Potter books.)

It was the exciting depiction of Roman life in Caesar's time that drew me to *Tros*. By 1948, though, what I really wanted was science fiction. I had discovered the pulp magazines, *Amazing Stories* and *Weird Tales* and the rest of that ilk, and I had begun to write my own first pitiful little short stories, and also I had found books like H.G. Wells' *The Time Machine* and Jules Verne's *20,000 Leagues Under the Sea*, which I belatedly realized were science fiction also. I knew there had to be other books of that kind somewhere, and I began to search the Brooklyn Public Library for them.

The quest began at the grand and glorious main building of the Brooklyn Public Library at Grand Army Plaza, about a twenty-minute walk from my house. I had been going there since I was eight or nine, usually on Saturday mornings, staring up at the imposing stone façade of the magnificent building and then walking around to the side, through a magical iron gate that led to the children's room. Over the years that room was my source for many of the standard children's books, the Peter Pan books, the Mary Poppins books, Kingsley's *The Water Babies*, W.H. Hudson's *Little Boy Lost*, *Winnie the Pooh*, and the like, and some that were not so standard, such as *The Book of Kings*, a translation of the Persian epic poem *The Shah-Namah*, which haunts me to this day.

But now, thirteen years old, I made so bold as to go around to the front entrance, to the adult wing of the building, and with trembling hands I rummaged through the card catalog looking for science fiction books. The card entry for "science fiction" referred me to "pseudoscientific fiction," a term which struck my high-minded younger self as offensive, but I hurried on nonetheless to the "P" section of the catalog and there found, indeed, several dozen books of pseudoscientific fiction. What riches were listed there! All the novels of H.G. Wells, and several by John Taine, whose

novel *Before the Dawn* I had discovered a few months earlier, and even a few of the modern-day SF novels that had lately been issued by valiant fan-owned small presses, L.Ron Hubbard's *Slaves of Sleep* and L. Sprague de Camp's *The Wheels of If* and Robert A. Heinlein's *Beyond This Horizon*. And off I scurried to the fiction shelves to find them.

Without success. I never found a one. Again and again I searched those shelves, but someone else had always taken out the books. Gradually I realized that I wasn't the only science fiction reader in Brooklyn, and that others, who lived closer to the big main library than I did, were searching those shelves just as assiduously as I was and snatching up all the pseudoscientific literature just ahead of my next Saturday visit.

But there was another library branch, a much smaller one, just a short walk from my home, one that I had visited regularly all through my elementary-school years. This was the Eastern Parkway Library, at Schenectady Avenue. I haven't set foot in it in sixty years, and I probably never will again, living as I do three thousand miles away. But it's still there, says the Brooklyn Public Library's web site. I remember it as a charmingly antiquated-looking place, dimly lit, with wood paneling and huge wooden shelves, but it surely doesn't look anything like that now: the library web site says that the original 1914 building has been renovated several times, most recently in 1975, and my guess is that it's now a place of metal shelving and glaring fluorescent lighting, and that the books I found in the Children's Room long ago (those nineteenth-century collections of myths and fables, in sturdily bound editions published, mostly, between 1920 and 1940) have been replaced by the slick, slender product of modern children's-book publishing. The web site tells me that the current Children's Room has four computers available. That tells the whole story right there.

When I was going to that library, primarily between 1945 and 1949, one thing



that the Children's Room had, where those computers most likely are now, was a bound set of *St. Nicholas Magazine* with crimson covers stamped in gold, volume after volume, running from the 1890s through, I suppose, 1935 or so—a beautifully printed children's magazine of yestercentury. I used to look through them in wonder, astonished at seeing actual ancient magazines from the nineteenth century. (The nineteenth century wasn't really all that remote in time, then—only fifty years separated 1898 and 1948, which seemed an awesome gulf to the me of the eighth grade, but no greater than the gap that separates John F. Kennedy's 1962 from the year 2012.)

Another set of books I remember from those early visits to the Eastern Parkway Library was the Oxford English Dictionary—a dozen huge volumes, safely stored behind the librarian's desk in the front hall. We had a dictionary at home, of course, the second edition of Webster's International, a big yellow folio, but each of these dozen volumes was far bigger than that one. I couldn't imagine how there could be that many words in the English language. The librarian let me look at it once—I must have been about ten—and I reverently turned its immense pages, pondering the vastness of our language and in all likelihood dreaming of owning a set of those books myself some day. (I never have; but I do keep close by my desk the one-volume Shorter Oxford English Dictionary, only 2515 pages long, a mere semblance of the unabridged book, but one that has proven adequate for my needs.)

I couldn't withdraw *St. Nicholas* or the O.E.D. from that library, but I must have carried hundreds of other books home over the years: all the great children's

classics, three or four at a time. But the critical one, the one that set my head spinning and changed my life, was a slim paperback that I found one day in 1948, after I had stopped hunting for children's classics and had begun looking for "pseudoscientific fiction." It was *The Pocket Book of Science Fiction*, edited by Donald A. Wollheim, a 310-page volume of short stories that ranged from the work of Ambrose Bierce and H.G. Wells to such modern masters of science fiction as Theodore Sturgeon, Robert A. Heinlein, and John W. Campbell, Jr. I have a bright memory of standing on the steps of the library on a sunny autumn day, staring in triumph at the small book in my hand—and then sprinting home to revel in it. How splendid it was to discover Stanley G. Weinbaum's "A Martian Odyssey" in it, and T.S. Stribling's mysterious "The Green Splotches," and Sturgeon's "Microscopic God"! That book kindled an appetite in me that has not been sated to this day.

I don't go to the library any more. I have my own copy of that Wollheim anthology—a 1947 printing, which I must have bought with twenty-five hard-earned 1948 cents soon after returning the library's copy—and I possess all those other books of yesteryear too, now. If I want to read Heinlein or Hubbard or De Camp—or *Winnie the Pooh*, for that matter, or *The Water Babies*, or *The Book of Kings*—I need only go downstairs and cast my eye along my own shelves. But I will never forget those library days of long ago, the excitement of discovery, the sense that these wondrous books were shaping me into the person I would become. And I suspect that each of you has some similar memory of your own. ○

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**Chris Beckett <[www.chris-beckett.com](http://www.chris-beckett.com)> lives in Cambridge, England. His new novel *Dark Eden*, a sequel to the short story of the same name (*Asimov's*, March 2006), was published in the UK in January 2012 by Corvus. ("A captivating and haunting book" said the British Daily Mail). His short-story collection, *The Turing Test*, winner of the 2009 Edge Hill Prize, has recently come out on Kindle. His latest tale for us takes us back to the world of "Day 29" (July 2011), this time from the point of view of two little children living at the edge of . . .**

# THE CARAMEL FOREST

**Chris Beckett**

**I**n the caramel forest the trees are yellow, grey, or pink, with trunks, branches, and leaves all made out of the same smooth mushy flesh. Every fifty yards or so, there are ponds, picked out by a lemon-yellow sunlight that elsewhere is filtered by trees. Around the ponds, spongy clumps of vegetation, white, or yellow, or pink, grow in the patches of sunlight. Elsewhere the ground is covered by a low pinkish mossy growth, which sometimes, in the shadiest spots, glows faintly with phosphorescence, even in the middle of the day.

Everywhere is pervaded by the heavy sweet caramel smell.

Cassie could still remember the time when all this had been new to her. She could remember it seeming so strange that she'd found it hard to believe that she wasn't dreaming. Of the journey itself, she had no memory. There was a blank space in her mind where the journey had been. And then a door had opened, and here she'd been. Here, suddenly, was all this.

She'd grown accustomed to it now. These days it was the world that she came from that seemed unreal and dreamlike, with its strange colors, its strange smells, its strange forms of life, somewhere out there across an unimaginable void that no one could ever remember crossing.

As for Peter, her little brother, he had no recollection of anywhere else but this.

So they pressed their faces to the windows of the car, trying to spot something more exotic and interesting than mushrooms the size of trees.

"It's five points if we spot an animal," Cassie told Peter, "and one hundred points for a castle."

Castles were a very long shot. They'd only ever seen one of those, and that had been in ruins. Its brittle and madly intricate architecture had been kicked and stamped to pieces by settlers. All that was left of it was a jagged stump, and a few amber-like whorls and coils lying in pieces on the ground.



No one knew how they were made, or what they were for.

But no castles appeared now, and nor did any animal. The forest, with its spotlighted ponds, was an empty stage. The only thing moving out there was the occasional solitary floater, drifting through the space between canopy and forest floor, trailing its delicate tendrils and bumping from time to time against the trees. Peter pointed out each one, but Cassie didn't consider floaters sufficiently interesting to merit a point.

"We must see a hundred of them every day, Peter," she pointed out. "And . . . oh, wait a minute!"

She craned round, thinking she'd spotted something moving next to a pond, some way off in the forest.

But no, there was nothing new there: only the spongy shrubs shining pink and white in the sunlight.

"Those aren't really ponds at all, you know," Cassie presently informed her little brother. "Under the ground they're all joined up. It's really a sea covered over by a roof of tree roots and earth. Even under this road there's water."

"Quite right, Cassie," said her father, David, from the front passenger seat.

There were two kinds of Agency people. One kind measured and mapped and classified. The other kind administered and educated and reformed. David was the first kind. He worked in an Agency laboratory that was slowly dismantling the caramel forest as if it were a giant watch, and examining each cog and spring.

"I wish we'd see some goblins," said Cassie. She turned away from the window to glance defiantly at the back of her mother's head.

"I'll give you twenty points, Peter, if you spot us one," she added, resuming her scrutiny of the forest, "and I'll let you have a turn with my microscope as well. They do come out sometimes in the day."

"We don't call them goblins, though, do we?" David reminded her. "We call them indigenes. They're not supernatural beings. Just living creatures like us, going about their lives as best they can."

Cassie shrugged.

"Everyone at school calls them goblins."

"Most kids in your school are the children of settlers. Their people have been living here for generations, cut off from the rest of us, and without the benefit of science. But we're Agency people, and we *do* have that benefit."

More ponds, more silent empty space beneath the mushroom-like trees.

"The other kids say that goblins are only good for shooting and nailing up," Cassie said, after a while.

"Well that's just silly, Cassie," her father told her. "Silly and brutal. Indigenes harm no one, and they were here for millions of years before the first settlers arrived."

"They give you funny ideas."

David didn't respond to this immediately.

"They certainly seem to," he conceded, after a few seconds of silence. "No one quite knows how or why. Possibly it's their way of protecting themselves."

"Protecting themselves?" Cassie tipped her head to one side for a moment and tested the weight of that idea. Then she set it aside with another of her characteristic shrugs. "Well whatever it's for, I . . ."

"Must you talk about those horrid things *all* the time?" interrupted Cassie's mother Paula in a small tight voice. It was almost a whisper.

\* \* \*

Paula took a corner a little too fast. There was a jolt as the left front wheel of the car bounced off the road into spongy moss, and then back out again. They were beside a particularly large pond, almost a small lake, with the road running along the edge of it.

David winced.

“Be careful, darling,” he said in a strained imitation of helpfulness, “we don’t want to end up in the water.”

“Thank you so much for reminding me of that, David. It would never have occurred to . . .”

“Hey, look at all those floaters together!” Cassie cried out quickly.

There were four of the things drifting close together above the water, trailing the long lacy strands with which they were thought to gather moisture and microbes from the air.

“Peter and Cassie had better play in the garden when we get back,” Paula said, when they were back under the mushroomy trees. “I need you out of the way so I can get ready for the visitors. We’ve hardly got enough time as it is.”

She half-turned her beautiful, bitter face toward her children.

“Honestly, Paula,” muttered David. “I can’t win. You keep telling me how bored and lonely you are. But when I ask some friends over, you complain about that as well. I thought you’d appreciate the company.”

“Yes, David, but it was just stupid to invite people to come to dinner at six o’clock, when you knew that we ourselves would still be two hours’ drive away at three.”

David turned away from her without answering.

“And anyway,” Paula said, “my idea of company is people who might be interested in talking with me about things that I understand. Not two of your workmates who will talk shop constantly, leaving me out completely, and one of whom you obviously fancy, judging by how often you mention her name.”

“For god’s sake, Paula.” David still didn’t turn to face his wife. “What was I supposed to do? They called me. They said they’d be passing our way. They asked if we’d be around.”

“You could have said we were already doing something. You say that to me often enough.”

“Let’s sing some songs,” Cassie called out.

Their home was a smooth yellow flattened dome set in the middle of a wide bare lawn. The lawn was bright green, a color entirely absent from the rest of the caramel forest. Around the lawn was a white, two meter high, chain-link fence, with floodlights on poles at four-meter intervals.

Juan, the caretaker, was outside his hut cleaning a gun. He laid down the weapon and limped to the gate to open it for them, nodding, but not smiling, as they passed through.

“Bo da, senar senara,” he greeted them with a small stiff bow. He could speak English well enough, but he confined himself where possible to the settlers’ language, Luto.

Paula stopped the car. Cassie jumped out at once and immediately organized a game for her and Peter. She was to be a famous explorer. He would be a wounded stray dog called Max that she’d taken in and healed. The car, on its fat blue wheels, would serve as his kennel.

“Woof! Woof!” said the dog.

Cassie frowned and held up her hand, thinking she’d heard something.

“Quiet now, Max.”



It was odd. The one thing she did not want to hear were the sounds of shouts or sobs from within the house. And in fact, if she *had* heard them, she'd have moved at once to cover them up with noisy play. Yet she still couldn't help herself from listening out for them: listening, listening, listening, while all the while glancing down the road back into the caramel forest, out there on the far side of the white fence, willing their visitors to arrive.

But the forest, that silent stage, remained still. Nothing made a sound. Nothing moved.

"We're in an alien world," Cassie informed her dog Max. "Where we come from, the trees are green like this grass, and none of the creatures can talk to you inside your head."

A gust of breeze blew her wavy red hair about her face. Hearing a new sound, she held up her hand again, but it was just the windchime in the yard of the other house behind theirs, the empty pink house, which, apart from Juan's hut, was the only other building in the vicinity.

It was five miles to the next human settlement, and that was the settler village where the children went to school.

"Come here now, Max, and eat this bone."

"Woof!" said Max.

He crawled obediently across to her and she ruffled his hair.

"Do you know where dogs and people come from?"

"Woof," said Max, shaking his head sadly.

"Don't worry," said Cassie kindly, "you're only a dog, so how could you be expected to know? I'll tell you, though. We come from another whole world. Imagine that. Another world, with nothingness in between it and us. Just empty space with no air or anything."

"Woof," said Max.

"And that empty space is so big that . . . oh, wait a minute. Here are the visitors, look. You'd better be Peter again."

Almost every night, through the thin wall of her room, Cassie would hear her mother crying.

"I *hate* this place. I *hate* this stinking forest. I'm so lonely. The kids are driving me nuts. . . ."

"Ssssssh!" her father would hiss after a few minutes.

Their voices would drop for a bit after that, but, sooner or later, Paula would raise her voice again.

"Of course the kids don't bug you when you're away all the time!" she might say.

Or: "But they're driving me crazy. *Really* crazy. Don't you even care?"

Or: "We hear all about *your* work, but what about *mine*? Why doesn't mine matter?"

"Shut up," Cassie would mutter on her own in the dark (for Peter would be sleeping peacefully in the room on the other side of hers, oblivious to all this). "Shut up, shut up, shut up."

She'd put her fingers in her ears and mutter *la la la* to stop herself hearing. And she'd try and think about things that had nothing to do with this house or her family, like that immense expanse of nothingness that divided the caramel forest from her home, that dreadful, enormous, hollow emptiness that somehow they'd crossed, even though she had no memory of it, and no one could really explain how it was done.

If she could only fully understand the scale and nature of that gigantic emptiness, she told herself, this little house, this little local difficulty, would cease to have any consequence at all.

It was a bleak sort of comfort.

But right now, there were the visitors to attend to.

“Sorry about the short notice,” said Ernesto, a very small man with a large moustache, “but it seemed a shame not to call when we were in these parts.”

“Hope we haven’t put you out,” said Sheema, a rather pretty dark-haired woman, a head taller than her companion. “Oh wow, look at this spread! You shouldn’t have gone to all this trouble!”

“Nonsense, nonsense,” cried Paula. “No trouble at all. Lovely to see you. We’d have been most offended if you’d passed this way and not come to see us.”

Standing in the background with Peter, Cassie watched her mother with narrowed eyes. Paula was smiling. She had laughter in her eyes. But Cassie had learned that this meant nothing. You could be laughing and joking with her one minute, thinking that the time of tears and quarrels must be finally over, but later that night, you’d hear her crying in bed, picking apart the day and saying how much she hated every minute of it.

“My,” said Sheema, “what *beautiful* children!”

Cassie accepted the compliment with a gracious inclination of her head, carefully scrutinizing this visitor who Dad was supposed to fancy.

Sheema quickly quailed in the intensity of her gaze.

“Such wonderful red hair, too!” she murmured, as she turned hastily back to the grownups.

“I suppose you’re at school,” Ernesto asked her, “what do you like studying the best?”

“Space,” Cassie said. “And goblins.”

“Oh my lord. I wish those had been subjects when *I* was at school.”

Ernesto turned laughing toward the other grownups.

Space and goblins.

Lately Cassie had been thinking and thinking and thinking about that huge empty space that lay between her and where she came from. It wasn’t just the size of it that puzzled her, but what it *was*. How could so much emptiness be there? What made it? What exactly *was* a space with nothing in it? She couldn’t say exactly why all this bothered her, but she thought about it sometimes until her head ached.

As for goblins, they often came and touched her dreaming mind. She knew when they’d been because they left a certain mood, a certain tangled architecture of feelings and sense impressions, intimate and alien all at once, like the caramel forest itself.

She could always tell when they’d been. And if they stopped for long, her mother would know too, and would wake and fret and moan.

“Okay, okay,” Cassie’s father conceded over the empty dinner plates. “They communicate with microwaves. The trees seem to act as antennae. They have an electromagnetic sense, and I suppose one can just about accept that this could make them sensitive to human brain activity in some way. But it doesn’t explain how they *interpret* it. . . .”

“They *don’t* interpret it, Dave,” Sheema said. “They pick it up and beam it back to us.”

“You’re not getting my point. They don’t just beam back random signals, do they? They’re able to home in on certain things. . . .”

“Or perhaps just stimulate certain parts of . . .” Ernesto began.



"And anyway, Sheema," David continued, ignoring the interruption, "the 'beam it back to us' theory doesn't explain how we manage to *receive* the signal."

"It doesn't have to be a case of receiving or sending a *signal*," Ernesto persisted. "Just stimulating certain parts of our brains. They disorientate potential predators by stirring up uncomfortable feelings. They don't have to know what it *is* they're stirring up any more than a chameleon has to know that the red thing it's sitting on is a tablecloth."

Peter, too young to stay up, had already been fed and sent to bed. Cassie knew she would soon be sent off as well, even though she'd been allowed to stay up for the meal. Making the most of her remaining time, she watched the grownups with sharp appraising eyes.

There were so many layers to adult conversation, that strange dull sedentary stripped-down form of play. Her father and his two workmates were talking more and more loudly as the evening went on. They all seemed angry, interrupting one another, loudly and impatiently, more and more, and yet at the same time they were smiling and having fun. Paula was smiling too, and even sometimes laughing, but she was drinking glass after glass of wine.

"What you're missing, Ernesto . . ."

David glanced uneasily at his wife, hesitated, then turned back to his friends.

"What you're missing, Ernesto, what you're refusing to consider is that this is a creature whose nervous system is absolutely nothing like ours. So how can it possibly home in on our 'uncomfortable feelings' and stir them up?"

He laughed angrily, looking first at Ernesto, then Sheema, on whom his gaze hesitated for a moment, as if he was trying to read something hidden behind her face. Then he glanced uneasily at his wife again, just for a fraction of a second, before turning back again to Ernesto.

"One can just about envisage," he said, "how an animal with an electromagnetic sense might be able to do this with related creatures with similar nervous systems. But with humans? How? We have a *completely* different anatomy. They don't even have neurons, as we understand them—they don't even have an *analogue* of neurons—and yet somehow you're telling me they're able to reach right through the particularities of the human brain, and locate the places where we keep our troubles!"

"Okay, we don't understand the *how* of it as yet, David, that's true. We're hampered experimentally, of course, by ethical considerations. But that doesn't mean we can't—"

"Are we ready for dessert?" cried Paula in a loud bright voice.

She leapt up to collect the plates. Her eyes were shining dangerously. David glanced at her again, this time with a flash of real fear in his eyes, but he still turned back stubbornly to his friends.

"Okay, we're hampered by ethics from progressing this. But the fact remains there is currently no even vaguely plausible hypothesis."

"No, but—"

"That was delicious, Paula," cut in Sheema, looking with sudden concern at her hostess. "I'll come and help you."

"Yes, absolutely delicious," Ernesto chimed in dutifully.

"So nobody knows how goblins get into our thoughts then?" Cassie asked her father as the women left the room.

"*Indigenes*, darling," said David, visibly irritated at being distracted from his conversation with Ernesto. "No. Nobody knows how they seem to make some people have uncomfortable thoughts."

"They don't make *me* have uncomfortable thoughts," Cassie said.

"Ah, well, maybe you haven't been near enough to one," suggested little Ernesto,

wriggling his moustache and giving her a friendly wink.

"I have so, loads of times. Here and at school. One came right up to the school fence a couple of weeks ago. It was sitting as near to me as Dad is now. I *liked* the thoughts it gave me."

"Did you indeed, sweetheart?" said her father, glancing at Ernesto, and raising one eyebrow in an odd, theatrical way that Cassie knew was only made possible by the presence of visitors.

Cassie shrugged.

"I liked being near it," she repeated. "But the other kids threw stones at it."

David laughed uneasily, glancing again at his friend.

"Nearly time for bed," he told her.

"I haven't had my dessert yet."

"Straight afterward, then," he said.

He began to talk to Ernesto again in words that she mostly didn't understand.

Two weeks ago, when she'd been asking a teacher some of her difficult questions about space, the teacher had asked Cassie to imagine a peculiar thing.

"Imagine there were creatures," he'd said, "that lived only in two dimensions. And imagine that a sphere passed through the flat space in which they lived. The creatures wouldn't be able to see the sphere, and in any case would have no notion that such a thing could exist. All they would know was that a dot appeared, spread into a circle and then shrank back down into a dot again before it disappeared."

Now, as she listened to her father and his friend, it made her think of those little two-dimensional creatures arguing endlessly about circles that grew and shrank for reasons that their minds and senses were simply unable to apprehend.

Or rather, she didn't exactly *think* about it, but the memory of that conversation came into her mind. It had been at the end of the week, and the settler kids were pushing and shoving each other in their haste to get out of the classroom and get back to their villages in the forest, and to their families, and to the lives that the Agency and its compulsory schooling had interrupted.

"Not knowing of the existence of a third dimension, they would have no choice but to go on and on trying to explain the strange expanding circle in two-dimensional terms," the teacher had said.

The memory came into her mind, and linked itself to the scene in front of her: on the one hand the expanding and contracting circle, on the other two little men arguing over a little table, in a little yellow house, under the stars, in the middle of the caramel forest.

Then Paula screamed in the kitchen.

"They're out there *again!*"

David rushed to his wife. Cassie hurried after him, followed a little more reluctantly by Ernesto.

Outside, just beyond the fence, were two thin grey creatures, picked out by the lights. They were about Cassie's height, one squatting, one standing, neither one of them looking at the house. Both seemed engrossed in some object that the squatting one was holding up for the other's inspection: a shell, perhaps, or a piece of stone.

"Make them go!" sobbed Paula. "Make the horrible things go away!"

"Get a grip now, Paula," muttered David. "Remember they're completely harmless, however spooky they may seem."

Sheema put her arm round Paula's shoulders.

"Completely harmless, love," she said in a warm kind voice, though Cassie saw her glance across at Ernesto behind Paula's back and pull a face that wasn't warm or



kind at all. "All they can do is stir us up a bit."

"Okay," said David, opening the kitchen door, "let's just send them on their way, shall we, Ernesto? Then we can sit down and relax and have our dessert."

"There there," Sheema murmured soothingly to Paula. "There there. Remember it's just a silly trick the goblins play. Just a silly trick they play on our minds. It doesn't mean anything."

The two men strode toward the fence as if they were doing something brave.

"Of course it means something," muttered Cassie, too quietly for anyone else to hear, as she slipped out of the kitchen door herself.

Out in the forest, the ponds shone and the moss on the ground softly glowed. The stage was lit and no longer empty. Whichever way she looked, creatures of many different shapes and sizes were moving under the trees.

"Go *away!*"

David kicked the fence and banged on it with the flats of his hands.

After a few seconds, the squatting indigene rose very slowly to its feet. Then both goblins turned their narrow faces toward David and regarded him with their black button eyes. Their V-shaped mouths resembled the smiles in a child's drawing.

"Go on, be off with you!" David shouted again. "You've had your fun. Now get on your way."

Each goblin tipped its head on one side, but neither of them moved away. Behind them, far off in the softly glowing forest, a column of unicorns was making its way through the trees.

Cassie started to walk down toward the fence.

"Cassie darling," called Sheema after her. "Don't you think you ought to . . ."

But she had no confidence with children, and broke off.

"Fear," said a voice in Cassie's head, "fear and lies."

It was the voice that always spoke in the presence of goblins: her own voice, talking her own language, but speaking words that she hadn't chosen.

Again David banged on the fence. It had no further effect on the goblins, but it brought Juan out of his hut in his T-shirt and underpants, swearing in Luto, with a heavy pulse gun in his hands. He limped to the fence and pointed the gun at the goblins at point blank range, barely acknowledging his employer or his employer's guest.

"Be careful, Juan," David protested, "no need to—"

Ignoring him, Juan pulled the trigger. The gun made a thudding sound, like a beanbag brought down hard onto a table, and the goblins staggered and clasped their heads.

"I think that was excessive, Juan," David said, as the creatures loped off into the forest.

"You want them to go or not, senar?"

Juan shrugged and turned back to his hut. Cassie knew his children—they went to her school—and she knew that Juan hated goblins and despised Agency people for protecting them.

David and Ernesto walked back to the house. Cassie, unnoticed, followed behind them.

"So?" asked Ernesto. "What did *you* hear in your head, David?"

"I didn't pay much attention," David said shortly.

"I heard the voice telling me that I was a second rate scientist with no imagination, and always would be," sighed Ernesto. "It's usually something like . . ."

"I wish Juan would listen to me a bit more," David interrupted, "and do what I ask him to do, instead of whatever he happens to think best. The Agency pays his salary, after all."

By the kitchen door, he noticed Cassie's presence and told her to go to bed.

“What about my dessert?” said Cassie.  
“We’ll save you some for the morning.”

Some nights were sobbing nights. Some were sniffing and sniveling ones. But that night, after Sheema and Ernesto had gone, it was the worst kind of night of all. It was a *wailing* night.

“I can’t *stand* those things, David. I can’t stand them. Can’t you see that? I just can’t bear another whole year of them. Why can’t you get that? Why doesn’t it *matter* to you? I know you don’t love me, but don’t you care about me one little bit? Don’t you care at least about the children?”

“The children are fine with goblins, you know that. And please keep your voice down, or Cassie will hear us.”

“They’re not fine with goblins. You really don’t understand *anything*, do you? Cassie *pretends* she’s fine with them as a way of coping and trying to keep the peace.”

“No, I don’t,” hissed Cassie in the darkness. “Stop lying about me. Stop *lying*.”

She banged angrily on the wall. Her parents’ voices subsided immediately to a murmur, but she knew the wailing would soon start up again.

“Run away, why don’t you?” asked a voice inside her head. “Why hold on to this dream?”

She went to the window. Sure enough, the goblins had come back. They were squatting side by side with their backs against the fence.

Cassie sighed. It was only a matter of time before Paula also sensed their presence, and then there would be no peace at all.

“My dad said you had goblins round yours last night,” said Carmelo.

Cassie was in her usual refuge in a corner of the playground close to the fence. It was a place where she could squat down behind a spongy clump of pink vegetation and be shielded from the general view. Juan’s son had come over specially to seek her out. He was dark and wiry, with clever mocking eyes.

Cassie shrugged. “Yeah, we did. I didn’t mind though. I quite like them.”

Beyond the fence lay the silent, empty forest.

“You quite *like* them?”

The boy took a cigarette from his pocket and lit it. He was still a child, but he drew the thick soupy smoke into his lungs in the manner of a habitual smoker of many years, and released it slowly with a contented sigh.

He squatted down beside her.

“Dad said your mom yelled and yelled when the goblins came back again in the night.”

“Yes, she did. We had to get your dad out of bed again to chase them away. Mom hates goblins.”

“Well, that makes one person in your family who’s got a bit of sense.”

“Why do you say that? What’s the harm in goblins?”

“They slowly take over your head, Agency girl. Slowly, slowly. Funny thoughts and dreams: that’s just the beginning. Next thing you know, you’ve forgotten who you are or where you came from, and then you belong to them. That’s why we shoot them and string them up. We’d be goblins ourselves if we didn’t.”

He drew in more smoke and regarded her with narrowed eyes as he let it back out through his mouth and nose. The two of them were still only children, but there was a certain electric charge between them all the same. Carmelo constantly mocked Cassie for her foolish Agency ways, and she scolded him for his ignorant settler beliefs, and yet he often came on his own and sought out her company, when he could have stayed with the other settler children, or brought them all over to tease her.

And she was pleased when he did.

"But you're not allowed to harm goblins," Cassie said primly. "It's against the law. You're supposed to treat them like people."

Carmelo made a scornful noise.

"Like people! We've been dealing with goblins here since long long before your Agency came along with its laws and rules. My dad says when he was a kid, every village had dried goblins nailed up on gibbets at the gates to warn the others away."

He drew deeply on the cigarette, regarding her carefully.

"Goblins were here long before you were," Cassie pointed out.

Carmelo laughed as he released the smoke.

"And we were here long before you, Agency girl. And Yava *gave* us this world."

Yava was the settlers' god, and Cassie knew from experience that there was no point in discussing him.

"You shouldn't smoke, you know," she said. "It'll mess up your lungs."

"*Don't do this, don't do that.*" the settler boy mocked her, and took another deep drag. "You Agency people are all the same."

"Well it *is* bad for you. That's just the fact of it."

Carmelo exhaled.

"Those goblins didn't come back again after their second visit, did they?"

"No. Not after your dad chased them away."

The boy snorted.

"Chased them away!"

"What? What's funny about that?"

"He chased them out of your sight, more like, and then did for the two of them with an axe. That way he got to sleep the rest of the night, without your mom and dad yelling for him again every hour or so."

Cassie stared at him.

"He *killed* them?"

"Of course he did."

"But we didn't want that!"

"Oh come on, Cassie, they're only animals."

"How could they take over our minds if they were only animals?"

But the boy had spotted a floater drifting in over the fence. Taking one quick final drag from his cigarette, he took careful aim and flipped the glowing butt end upward. There was a hiss of gas as the burning tip made contact, and then the floater sank, slowly deflating, onto the ground.

Carmelo walked over to it and squeezed out the remaining gas with his foot.

One night, a month or two later, Cassie was woken in the early hours of morning by her parents quarrelling yet again, on the far side of the bedroom wall.

"Why don't you *listen*, David? *I—don't—want—to—stay!* Which part of that don't you understand?"

Cassie got up and went to the window. The lawn outside shone its unnatural green in the bluish glow of the lights around the fence. Far off in the forest, tall shadowy giraffe-necked creatures were moving round a shining pond.

"*Why* is it impossible, David, why?" came her mother's voice. "Why can't you just go to the Agency and say 'sorry, we made a mistake, we need to go home before my wife loses her mind, and my kids become even more weird and goblin-like than they already are'? Why is that impossible?"

Cassie considered knocking on the wall as usual. Her parents had already had one long row earlier that night. Surely they could see it wasn't fair to wake her up again?

But she didn't do it. Something in her mind had clicked into a new position,



though she couldn't have said why, after months and years of this nightly torment. Giving a little firm nod of assent to her own impulse, she pulled on some clothes and tiptoed quietly to the door. As she touched the handle, her mother's voice rose yet again in the next room.

"I *know*, David, but what you've got to understand is . . ."

Cassie closed her bedroom door behind her.

Her brother woke with a start.

"Peter. Wake up. We're leaving."

"What?"

He always obeyed his sister unquestioningly, but he'd been deeply asleep, and still wasn't sure where he was or what was going on.

"Where are we going?" he wanted to know, while Cassie passed him clothes.

"Away from here. Mom's shouting at Dad *again*."

Cassie took the key to the compound from the shelf beside the kitchen door, then they crept out across the grass. She slid back the bolt on the gate, very slowly and carefully so as not to disturb Juan, who luckily was a little deaf.

Once she'd carefully closed the gate behind them, she led Peter briskly away from the brightly lit fence and straight off the road.

"Dad says you could walk five hundred miles this way," she said as they headed into the caramel forest, "and still not reach another road."

All around them were ponds, and phosphorescent moss, and creatures moving under the dim mushroomy trees.

"Where are we going?" Peter asked again as he trotted behind her.

"I don't know yet," Cassie said. "But don't keep asking me, eh?"

From a pond straight ahead of them, unicorns emerged, scrambling one by one out of the bright water to snuffle and flare their nostrils in the caramel air, before heading off in single file through the trees.

Peter began to count them.

"One, two, three, four . . ."

"Seventeen," Cassie told him shortly.

About twenty ponds later, they came to one where a single, very small goblin sat at the bottom, lit by the pink phosphorescence of the pond's floor. The creature was not much bigger than a large cat and it was staring straight ahead, apparently at nothing in particular, like a frog waiting for the motion of a fly to trigger it into life.

Peter pulled at his sister's hand, troubled by the goblin's presence down there, and wanting to move away, but Cassie stood fast, and soon the little goblin glanced up for a moment, its black button eyes taking in the two children looking down on it from the air above.

"Mommy is going mad," said a calm cold voice inside Cassie's head. "Daddy is a scaredy-cat, who hides away at work."

"Yes, sirree," she muttered with a grim chuckle. "You got that right, my friend."

Peter began to cry, and Cassie turned to him with a frown.

"Go on then," she said, "Spit it out. What did it say to you?"

Her little brother just sobbed.

"Well, whatever it said," she told him firmly, "you may as well face up to it, because it's true. They don't tell lies."

Peter nodded humbly.

"So go on then," Cassie persisted. "Tell me what it said."

"It said . . ." snuffled Peter, "it said that Mom wishes I'd never been born."

"Oh *that*," Cassie snorted. "Is that *all*? I could have told you that. I've heard it often

enough through my bedroom wall. She wishes she hadn't had either of us. Spoiled her career apparently, and anyway she doesn't like kids. Come here, you silly boy. Come to big sis. *I love you, don't I?*"

She pulled Peter close to her, putting her arm round his shoulder in a rough masculine way. Three baby water dragons had appeared, supple as eels and slender as human fingers, and began to chase one another round and round the little goblin, which had resumed its original position.

"There you are, Peter," Cassie said, hugging her brother against her, and absent-mindedly patting him. "There there. That's better, isn't it? You've got *me* to look after you, haven't you? You've got your big sis. So you don't need them, do you? You don't need anyone else at all."

Peter sniffed and nodded.

"There's all the food anyone could want out here, after all," Cassie told him, giving him a little encouraging shake. "We'll be *quite* happy having fun out here all by ourselves. No Mom blubbing. No Dad whining. No horrid school with settler kids who think that killing things is fun."

At the bottom of the pond, the goblin suddenly swam off. In a single, frog-like stroke, it disappeared into one of the underwater tunnels that linked the ponds together under the trees.

"Come on then, trouble. Let's get moving again, before someone notices we've gone."

All night, with pauses for food and rest, they wandered through the caramel forest, Cassie telling Peter stories to keep his spirits up, or providing him with improving pieces of information, or making up games for them to play together. Who could find the biggest tree pod? Who would spot the next dragon?

"Why don't you be Max the dog again, Peter," she suggested when he seemed to be flagging, "and then you can snuffle things out for us."

The show was in full swing all around them.

"Woof! Woof!" said Max almost at once, spotting a gryphon fanning a pair of incandescent wings that crackled with electric charge.

"Woof! Woof!" he said again, as a white hart darted away from them, and plunged into the underground sea.

"Woof! Woof!" he shouted out, as an Agency helicopter came thump-thump-thumping over the mushroom trees, probing down into the forest with long cold fingers of light.

"Good boy, Maxie," Cassie told her brother. "*Good* boy. Now quickly come and hide."

Not long after the helicopter had passed over, dawn began to break. The phosphorescent glow faded from the moss and the ponds, the stage emptied, and the two children found themselves walking alone through ordinary sunlight that filtered down through the trees, like sunlight did in the forests that Cassie dimly remembered from that place across the void.

They lay down to sleep in deep soft moss.

When Cassie woke the sun was already setting. Beside her Peter still slept peacefully, sucking the edge of one finger, and for a while she just lay there watching the shadows of dreams rippling across his face, his eyes darting about under his closed lids. . . .

And it came to her that, during the quiet still hours of daylight, creatures had come to watch the both of them in just this same way. For she'd had strange thoughts running through her sleeping mind, and a familiar voice in her head had been telling her that there was no faraway home, no great void of space, only the one single whis-

pering, fizzing, seething world, strange and familiar all at once.

From a nearby pond climbed a small winged quadruped, shaking its sparkling wings. "Come on, Peter," Cassie called out gaily. "Wakey, wakey! It's another lovely night."

They were deeper into the forest that night, further away from Agency stations and settler villages alike, and they came across many goblins.

The creatures were sometimes on their own, often in twos and threes. They watched the children with their black button eyes and smiled their V-shaped smiles. One of them held out a white stone, another a piece of twig. One even showed them a small brown button from a settler's jacket.

"There is no space," said the voices in Cassie's head, as the goblin's eyes watched her. "There are no people. There is no such thing as far away."

It seemed strange to her that she'd ever been persuaded to believe in an immensity of empty space beyond the caramel forest and its sky, for it seemed obvious to her now that everything that existed was as close as could be to everything else: close enough to whisper and rustle and murmur, close enough to touch. . . .

She looked at the button. She nodded. She turned away.

Peter clutched her hand so tightly that it hurt.

Several more times they heard the thud-thud-thud of a helicopter passing over the forest, and saw the Agency searchlights sweeping officiously through the mushroom-like trees, leaching the color from leaves and trunks.

The children just hid until they passed, surrounded by the whispering and rustling and murmuring of the caramel forest.

Cassie had no desire to be plucked up into the empty sky.

When dawn came again, they came to a castle. It was very small, about Peter's height in fact, and looked at first like a little smooth stalagmite that had grown there on the edge of a pond. But one side of it was open, and they could see the intricate little chambers inside it, with their amber whirls and coils that enclosed even smaller chambers, and yet-tinier whorls. . . .

The children gathered the spongy vegetation that grew around the castle and made themselves a secret nest nearby, well hidden from the sky. Then they found some savory chicken fruit to have for their supper and a couple of toffee apples for afters.

"Now wash your face and clean your teeth in the water, Peter," Cassie said when they'd finished eating. "And then let's get you settled down."

She stroked his head and told him a story, while the sun rose in the sky, turning as it climbed from a syrupy rosehip red to pale lemon.

"I'll look after you, my little bruv," she whispered to Peter's already sleeping face. "I'll always look after you."

Three goblins arrived. One by one they caressed the little amber castle, and bent down to stare into its interior. Then they settled on their haunches on the bank of the pond, without even a glance at the two children.

"Won't find your way back now," said the voices in Cassie's head.

"Not if I can help it," muttered Cassie contentedly, stretching out in her improvised bed.

*Crack!*

There was a gunshot, followed by human voices and barking dogs.

Peter lurched into wakefulness with a whimper.

*Crack!*



One of the goblins dived into the pool.

*Crack!* A man ran to the bank and fired into the water.

"Is all right now, darlings. We take you back to your Ma!" growled another man behind them in a thick Luto accent. "Goblins won't scare you no more."

Cassie and Peter sat up. They clung together. The whispering and murmuring of the caramel forest was suddenly far away.

"And maybe this time Agency go listen, eh?" grumbled a third man, helping Cassie and Peter to their feet. "Maybe this time they go understand why goblins is bad."

The air was full of smoke. These weren't pulse weapons that these men were carrying. They were proper old-fashioned guns, blasting out deadly balls of hot, hard matter, designed to rip through flesh.

Dogs came sniffing and snuffling, first round the children, and then, rather more interestedly, round some smooth greyish stuff that was strewn over the ground nearby.

Cassie gazed at it, uncomprehendingly.

"Don't worry about nothing," said the leader of the search party. (It was one of dozens spread out across the forest, linked by walkie-talkie to the Agency helicopters overhead.) "Is only crazy ideas these goblins put in your head. That's all. Only crazy ideas. They'll went away soon enough."

He ruffled Peter's hair kindly, and gave Cassie a friendly wink. She stared at him. The other men were breaking up the castle with their gun butts.

One of the dogs took an experimental mouthful of the grey stuff, then sneezed and spat it out. It was goblin flesh, smooth all the way through, like the flesh of mushrooms. ○

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# Golden People

If the world  
were Golden People,  
our eyes would sparkle  
and our teeth would shine.

There would be no celebrity.  
No Gods and Goddesses  
to pursue and adore.  
For we would all  
be Gods and Goddesses.

As Divine as if  
we had been poured and cast  
by a Master Craftsman  
in workshops  
of Glorious Light.

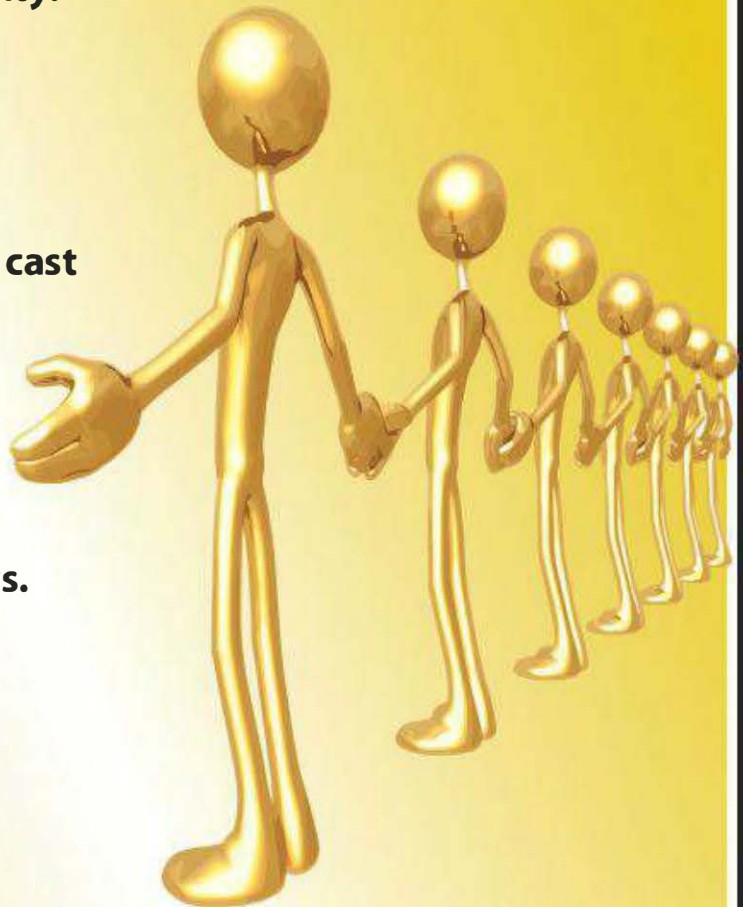
Intrigues and romances,  
precious exclamations  
and boffo conversations,  
would punctuate our days.

High adventures  
and the allure  
of nightscape chases  
would fill our dreams.

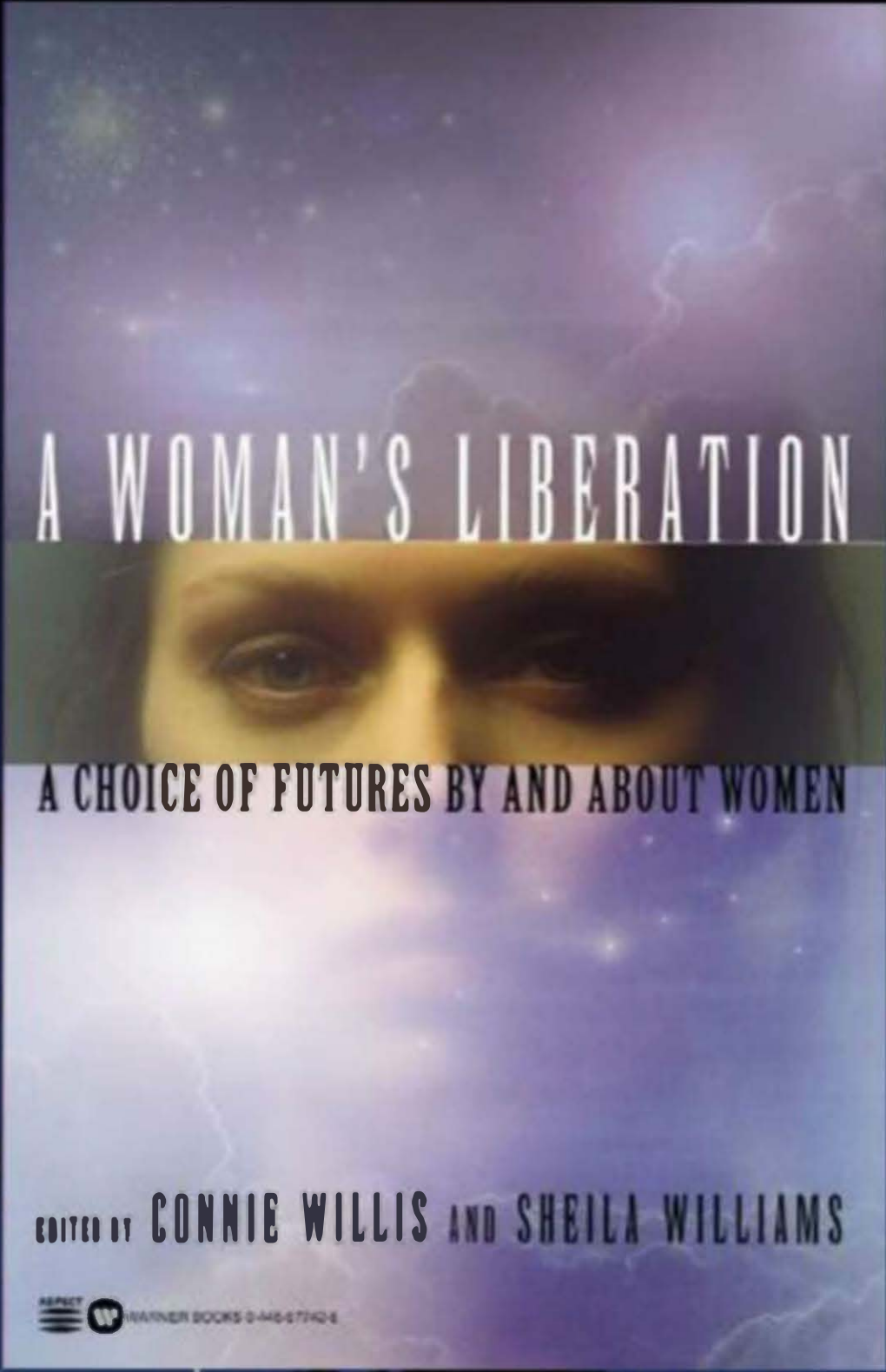
The future would hold  
forth infinite promise  
in unscarred hands.

And if we turned green  
along the way,  
as some gold  
is wont to do,  
a bromide or two  
and we'd soon sparkle again.

If the world were Golden People,  
we would live and die with  
the illusion and photogenic  
certainty of unspent youth.





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The book cover features a central image of a woman's face, looking directly at the viewer, set against a background of a stormy sky with lightning and stars. The title and subtitle are overlaid on the image.

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# THE WIZARD OF WEST 34<sup>TH</sup> STREET

Mike Resnick

**Science Fiction's Worldcons have been very, very good to Mike Resnick and his fiction. A record thirty-six nominations for Worldcon's prestigious Hugo Awards have gone to his works.**

**Many of these, including this year's nomination ("The Homecoming," April/May 2011) were first published in *Asimov's*. Mike has won five Hugos and this year he's the Guest of Honor at Chicon 7: The 70<sup>th</sup> World Science Fiction Convention. His current novels are *The Cassandra Project* with co-author Jack McDevitt (Ace) and *The Doctor and the Rough Rider* (Prometheus Books). Mike's latest story for us will take you to a strange little spot—somewhat west of Macy's—where miracles have been known to occur.**

I'm sitting at my desk, pretty much minding my own business and wondering how the Knicks will do when they go up against the Celtics in a few hours, when Milt Kaplan starts muttering into his phone about fifteen feet away from me. I try not to pay attention, but he gets louder and louder, and there is a desperate tone in his voice, and it becomes clear that he is being harassed for rent money or a credit card bill or a phone bill or (knowing Milt) probably a combination of all three.

Finally he slams the phone down and stares at the wall for almost three minutes, which is a long time to stare at anything except a pretty girl. I am afraid he might be getting suicidal, so I figure a funny remark will bring him back to Earth, and I tell him that he can only stare at his half of the wall; if I see his eyes darting to the right I'm going to charge him the standard fee for staring at my half.

He doesn't crack a smile, but when he speaks his voice is soft and strained.

"I think I'm gonna have to see the Wiz," he says.

"Of Oz?" I ask with a smile.

He shakes his head and doesn't return the smile. "Not unless Oz has moved to the West Thirties."

So now I figure he *has* gone off the deep end, he's just being quiet about it.

He checks his watch. It's a quarter to noon.

"What the hell," he says. "They're not gonna fire me for taking an early lunch. If he's in the usual spot, I'll be back by one. If not, cover for me."

I don't want to let him go walking through noontime traffic in this state of mind, so I get to my feet.

"Want a little company?" I ask.

"Sure," he says. "It's chilly out, and if there's a line waiting to see him, it'll be nice to have someone to talk with."

We put our coats on, take the elevator down from the twenty-seventh floor, walk through the lobby, and out the main entrance.

"I hope the import/export business doesn't grind to a halt because we left a little early," I say,

"I was arranging for two gross of Bermuda shorts for what we call extra-large women," he replies. "I think the country can survive an additional hour and a quarter without them."

We walk south a few blocks, then turn right when we come to 34<sup>th</sup> Street.

"Six or seven crosstown blocks and we're there," he announces, heading off.

"We're *where*?" I ask.

"Where we're going," he says.

"Is it a building, or a restaurant, or what?"

"That all depends."

Now I know he's crazy, because locations don't change from one thing to another on a whim. It's getting chilly, so I figure if I can get him to admit we're on a wild goose chase, maybe we can stop at a coffee shop, warm up, and go back to work at a quarter to one, before anyone gets too mad at us. So I ask: "*What* does it all depend on?"

"Where he's at, of course," says Milt.

"Where *who's* at?" I ask in exasperation.

"The Wiz," he explains as if to a child. "Where the hell did you think we were going?"

"You wouldn't believe me if I told you," I say, because there is a story circulating around that whenever Milt Kaplan gets lost he can usually be found in Passaic with a blonde named Bernice. He doesn't seem inclined to expand upon his answer, so finally I ask where we *are* going.

"West 34<sup>th</sup>, of course," he answers. "Where else *would* we be going?"

"Beats the hell out of me," I say. I'd shrug, but it's too damned cold out.

"I mean," Milt continues, "he *is* the Wizard of West 34<sup>th</sup> Street. Why would I look for him anywhere else?"

"The Wizard of West 34<sup>th</sup> Street?" I repeat. "I never heard of him."

"He doesn't advertise."

"An understatement," I say.

"My wife hates it when I go to him. She always thinks he's going to want to be paid with my soul instead of with money." He snorts. "As if anyone could find the damned thing." He shakes his head. "I've got no choice. We could lose the apartment—and trying to get a place after you've been living a dozen years with rent control . . ." He lets his voice tail off.

"Tell me about this Wizard," I say. "Does he wear a pointed hat and a robe with all the signs of the Zodiac?"

Milt shakes his head. "He dresses just like anyone else." He pauses thoughtfully. "Maybe a little worse." Another pause. "And he usually needs a shave."

"Goes with having a long white beard," I suggest.

"Nah," says Milt. "Usually it's just stubble. Kind of the way Clint Eastwood used to look in those spaghetti Westerns, only gray."

"And this is a guy you think is a wizard?"

"I don't think it, I *know* it," replies Milt. "We *all* know it."

"Who all knows it?" I ask.

"All the guys who use him."

"Sounds like he's got a hell of a sweet racket going," I say. "I'm surprised the cops haven't busted him."

"Why should they?" he shoots back. "There's never been a complaint against him. Hell, sometimes the cops use him too."

"I've got to see this wonder worker," I say.

"You will," he promises as we cross Sixth Avenue. "He's usually somewhere between Eighth and Tenth."

"He must be freezing his ass off."

Milt chuckles. "We'll find him in a bar, or perhaps a sandwich shop, either on 34th itself or maybe two or three buildings north or south on one of the cross streets. He doesn't like being outside except in the summer."

So we walk, and I try to guess which brownstone Rex Stout pretended that Nero Wolfe lived in, and we peek into the windows of a couple of bars, but Milt shakes his head after a moment and we keep on, and finally we come to a deli.

"Yeah, there he is," says Milt without much enthusiasm. "Damn, I hate this!"

"So let's turn around and go back to the office," I say.

"I can't," he responds unhappily. "I need the money."

"What is he really?" I ask. "Some kind of loan shark?"

He shakes his head again. "You coming in with me?"

"I wouldn't miss it for the world," I say, falling into step behind him as he enters the place. We make a beeline for a table where this middle-aged guy is sitting. His clothes clearly came off the bargain rack to begin with, and have all seen better days and better years, and the shoes have probably seen better decades. He's got a bowtie beneath his unbuttoned collar, but it's just hanging down, and I get the feeling that the next time he ties it into a bow will be the first time. There's a patch on his jacket's elbow, and he could use a haircut or, failing that, at least a comb.

"Ah, Milton!" he says, looking up from his meal, which seems to consist entirely of chopped liver and rye bread, plus a couple of cheese blintzes. "How nice to see you again! Sit down. Have a knosh."

"Have a knosh?" I repeat. "What kind of language is that for a wizard?"

He stares at me. "How many wizards do you talk to on a daily basis?" he asks at last.

"This is my friend Jacob," says Milt hastily. "Can he join us?"

"Got no room at this table for Jacobs," says the Wizard. He turns to me. "You want to sit at an informal table like this, you got to be Jake."

"Okay, I'm Jake," I say, sitting down.

"You look like you are," he says. I frown, trying to figure out what the hell he's talking about. "Forget it," he adds. "It's an old expression I found lying on the floor."

"Have *you* got a name?" I ask.

"You couldn't pronounce it," he replies. "Just call me Wiz."

The waiter comes up and hands the Wiz a folded note. He opens it, reads it, and shakes his head. "It's gonna rain Tuesday morning, and this horse can't stand up in the mud, let alone run six furlongs on it. Tell him no."

"I heard the forecast just before I left the house this morning," I say. "It calls for clear weather all week."

"Amazing how these guys can stay in business when they're wrong so often," comments the Wiz, pouring some cinnamon sugar on his blintzes. "So, my friend Milton, what can I do for you today?"

"I've got a bit of a cash flow problem," says Milt.

The Wiz closes his eyes for a few seconds, and he frowns like he's concentrating on something. "You don't have to sugar-coat it, Milton, not with *me*. You're in deep shit."

Milt nods uncomfortably.



"Could be worse," says the Wiz. "You could live in some town where you needed a car, because if you did they'd sure as hell have repossessed it if you'd waited this long to see me."

"I kept waiting for the market to turn," answers Milt miserably. "My broker kept saying it would happen any day."

The Wiz makes a face. "*Brokers!*" he snorts contemptuously. "They're almost as bad as weathermen." He pauses and stares at Milt. "How much do you need?"

"Don't you know?" asks Milt, surprised.

"My mistake," amends the Wiz. "How much do you *want*? We both know how much you need."

"Twelve, thirteen grand?" says Milt, though it comes out more as a question.

"How soon?"

"By Friday."

"Too bad," says the Wiz. "There's a really nice filly who'll be running for a big price on Saturday." I must have made a face, because he turns to me. "You don't think she'll win?"

"I don't even know who the hell she is," I say. "But somehow I thought a wizard was more than a racetrack tout."

"I'm not a racetrack tout," he replies. "I haven't been to Belmont or Aqueduct in years."

"You know what I mean," I say.

"Yes, and I want you to remember that I didn't take offense at it." He turns to Milt. "Give me a pen." Milt supplies one, and he begins scribbling on a paper napkin. "You still have a little over seventeen hundred dollars in your bank account. Take it out—"

"All of it?" interrupts Milt, his voice shaking a little.

"Take it out," repeats the Wiz firmly. "Give it to your broker, and tell him to go to the commodities market and invest it all on what I just wrote down." He looks up at Milt. "Now, this is important, Milton, so pay attention. He has to buy between noon and one PM on Wednesday, and he has to sell it between ten and eleven AM on Friday morning. If one or the other of you fucks up either end of it, don't come running to me."

"And that'll give me thirteen grand?" asks Milt.

"After my fee," says the Wiz.

"Oh, of course," agrees Milt promptly. "Thank you, Wiz."

The Wiz shrugs. "It's my job."

"Your job?" I say. "Who do you work for?"

"I'm a freelancer."

"Are there any other wizards in Manhattan?" I ask.

"Not to my knowledge." A brief pause. "I sure as hell hope not."

"Don't want any competition, eh?" I say with a smile.

He stares at me with suddenly sad eyes that have seen too many things. "If you say so, Jake," he says at last.

Milt gets to his feet. "I owe you big time, Wiz," he says.

"I'll collect, never fear," the Wiz assures him. He sighs, suddenly deflated. "I always collect." It sounds like anything but a brag.

"You won't be offended if I leave?" continues Milt. "I want to get by the bank before I go back to the office."

"Not a problem," says the Wiz. He nods toward a woman who is wearing a dress that just doesn't belong in a cheap deli, along with furs and diamonds that would be ostentatious even fifty blocks north of where we are. "I have someone else waiting to see me."

"Nice meeting you," I say, getting up and trying not to sound too insincere.

“May I offer you a suggestion, Jake?” he says, and then adds: “Freely given.”

“Sure, why not?” I say in bored tones, waiting for him to tell me what horse or boxer to put some money on.

“I have a feeling that you were planning on having dinner at Rosario’s tonight.”

“Now, how the hell did you know that?” I ask, surprised.

“Just a guess.”

“Damned good guess,” I admit. I turn to follow Milt to the door.

“My suggestion?” he says, and I stop and turn back to him.

“Yeah?”

“Don’t eat there this evening,” says the Wiz.

Before I can answer, he signals the bejeweled lady to come to the table, and I join Milt in the street.

I don’t go to Rosario’s Ristorante that night. I don’t know why. Maybe I just have a taste for Greek food instead. I really don’t think what the Wiz said has anything to do with it.

But the next morning, as I am getting dressed, I hear on the news that Rosario’s has burned down to the ground, and that six diners have died in the blaze.

I am back at the deli at noon, but he’s not there. I walk up and down 34<sup>th</sup> Street, peeking in windows, and I finally see him in a bar that looks even grubbier than the deli. He is sitting in a booth, smoking a bent cigarette and talking to someone who looks like a male version of the lady in the furs and diamonds. I don’t want to interrupt him, but I am damned if I’m going to just turn around and go back to the office, so I enter the place and sit down on a bar stool in the corner, right below photos of Mickey Mantle, Joe Namath, Willis Reed, Secretariat, and Tuffy Bresheen, a lady roller derby star from before I was born.

I nurse a beer for about ten minutes. Then the well-dressed guy gets up and leaves, but before I can even climb off my stool a tiny man—in the dim lighting I can’t tell if he’s a dwarf or a midget—climbs onto the booth opposite the Wiz, asks a single question, looks damned pleased with the answer, and walks right back out.

“Ah, it’s the Real Jake,” says the Wiz. “I appreciate your patience. Come join me. Bring your beer.”

I walk over and sit down, placing my beer on the stained tabletop.

“What can I do for you, Jake?” he asks.

“How the hell did you know Rosario’s would burn down?” I demand.

“What difference does it make?” he responds. “I was right, wasn’t I?”

“You know you were,” I say. I stare long and hard at him. “Did you set the fire?”

“Of course I didn’t,” he says. “We’re not going to be friends if you say things like that, Jake.”

“Are we going to be friends?” I ask rather pugnaciously.

“Absolutely,” he replies. “I don’t do favors for just anyone, you know.”

“No,” I say. “They have to pay you.”

He almost winces. “Did I charge you a penny?” he asks in hurt tones.

“Why me?” I say.

“Because there’s enough pain in the world,” he answers. He stares at me. “I do you a service, I save you from second-degree burns, and I don’t charge you a thing. Why should that bother you?”

“Second-degree burns?” I repeat.

He nods his head.

“Not first-degree or third-degree?” I say.

“No,” he answers mildly but with absolute certainty. “Second-degree.”

“You’re sure?”

"I never lie," he says.

"So you saved my life . . ." I begin.

"Not your life," he answers. "But a considerable portion of your skin."

"And you didn't charge me a thing," I continue. "But you charge people for giving them winners at the track, or telling them what stock to play."

"Oh, I do more than that," he says. "I tell actors which plays to try out for and which ones won't run a week. I tell fishermen where they're biting and where they're not." A sudden smile. "I even tell Tootsie La Belle when to tone down her strip routine because a couple of cops are waiting to arrest her if she goes too far." He takes another sip of his beer. "It's much more than stocks and horses, Jake. I'm not a tout or a prognosticator. I'm the Wiz."

"What else can you do?" I ask.

"What else do you want?"

"Hell, I don't know," I admit. "I should be thanking you for saving my life—"

"Your skin."

"Okay, my skin. But instead, I'm getting more and more frustrated because I don't understand you."

"What's to understand?" he says. "I'm the Wiz. I see suffering, now or in the future, and I do what I can to cure it, or at least alleviate it. People come to me with their problems, just like they go to a doctor or a dentist."

"Or a priest," I say.

He smiles. "Well, in this neighborhood, it's more likely to be a rabbi." He stares at me. "So what is it that troubles you?"

"You can pick winners. You can pick stocks. You can pick hits and flops. You can probably pick political races. So why aren't you worth billions?"

"What would I do with billions?"

"You could start by getting a shave and haircut, and maybe taking a bath. You could dress a little better, and live a lot better," I say. "Hell, you could buy the Empire State Building."

"Probably," he agrees. "But what would I do with it?"

"Didn't you ever want to be something else?" I ask, and the second the words are out of my mouth I realize what a damnfool stupid question it is. After all, he's the Wiz.

And suddenly there's a very wistful smile on his face. "More than you can possibly imagine."

"Well?" I say.

He utters a deep sigh. "It's not as easy as you think or I wish."

"Why not?"

"There's your friend Milton, and a thousand other Miltons," he answers. "Where would they go if there wasn't a Wiz?"

"That shouldn't be your concern," I respond.

"Oh?" he says curiously. "Whose concern is it?"

"Theirs, of course," I say.

He shakes his head sadly. "They're not up to it, Jake," he replies. "That's why they come to me."

"So the noble Wiz saves them all," I say.

"No, Jake. I can hardly save any of them," he says. "Look out the front window." People are walking past, and he starts pointing at them. "Heart attack. Cancer. Cancer. Mugged in the subway. Alzheimer's. Aneurism. Cancer." He turns back to me. "I can't save, or even help, more than one of them, and only if he asks me."

"There are rules to being a saint?" I ask sarcastically.

"I've no idea," he answers. "But there are rules to the wizard game."

"So am I going to read about those seven people tomorrow?"

December 2012

He shakes his head. "Some of them will live another twenty or thirty years. The man in the blue coat won't make it past the end of the week."

"You're sure of all that?" I say.

"I'm sure." He lights another cigarette. "I'm sure of something else, too."

"What?" I ask.

"No matter how it appears to you, it's not a blessing."

I check my watch. "I've got to get back to the office."

"Stop by again, Jake. We could become friends. I'd like that."

"There's probably a thousand men and women who *want* to be your friend," I say. "Why me?"

"Because you don't want anything from me."

"No, I don't," I say, getting up from the booth. "Keep your millions. I won't even envy you until I'm back at the office."

"Never envy me, Jake," he says seriously.

"Okay, as soon as I'm at my desk I'll go back to envying LeBron James, or maybe Tom Cruise."

"What floor is your office on?" he asks.

"The twenty-seventh. Why?"

"Can I make a suggestion?" he says.

I just stare at him.

"Take the freight elevator."

"Why?" I demand.

"Just a hunch."

"Bullshit," I say. "Whatever's going to happen, you know exactly what it is."

"I don't want to rush you, Jake, but the lady who just came in is worried about her son, who's seeing some action in the Middle East. She's very distraught, and I don't want to keep her waiting."

So I go back to the office, and I take the freight elevator, and an hour later Milt enters and sits down at his desk.

"Long lunch?" I ask, though I knew it wasn't.

"Circuit on the fucking elevators blew," he mutters. "We were stuck in the damned thing for over an hour."

On Thursday I find him sitting on an ancient wooden bench that's been set up outside a small grocery store on Tenth Avenue, just around the corner from 34<sup>th</sup> Street. It's forty degrees and windy, and he hasn't got an overcoat, but he doesn't seem uncomfortable. He's smoking a cigarette, and I sit down next to him.

"Those things'll kill you," I say, indicating the cigarette.

"No such luck," he answers.

"Thanks for saving me from a couple of hours of being stuck in an elevator."

He shakes his head. "An hour and ten minutes. Hour and a quarter, tops. Depends on which elevator."

"Milt was stuck in one of them."

"Poor guy," says the Wiz, not without compassion.

"If you're half as good as I think you are, you knew when he visited you in the deli that it would happen," I say.

He shrugs. "Anything's possible."

"Then why didn't you warn him?"

"He's going to use up all his extra money just thanking me for putting him in the right commodities at the right time," answers the Wiz. "And where would I be if I worked for free?"

"But you told *me* for free!" I yell.



"Keep your voice down, Jake. If we disturb enough people, Homer the cop will chase me back inside"—he indicates a grubby coffee shop three doors down—"and it's too damned stuffy in there."

"Then answer me!" I insist.

"It was an act of friendship," says the Wiz.

"Why me?" I say, and realize I asked that the day before too. "What have I got that Milt and a thousand other supplicants haven't got?"

He smiles. "For one thing, you're not a supplicant."

"That's no answer."

"Funny," he says. "I could have sworn it was."

"So all someone has to do to be your friend and get free use of your services is to not ask for them?" I say.

"No, Jake," he says. Suddenly he stares intently at me. "I helped you because I have a feeling that we're kindred souls." His cigarette goes out and he pulls a semi-crushed pack from his pocket. "I take it you don't want one?"

I shake my head. "I had a father and an aunt die from cancer."

"You won't die from cancer, Jake."

"You can see *that* far ahead?" I ask.

"Just take my word for it."

"What *will* I die of?" I continue.

"Most people don't want to know."

"I just want to know *what*, not *when*."

"Let it go, Jake," says the Wiz, and suddenly he looks very old and very tired. "I don't like talking about the end of things." He taps his temple with a forefinger. "I see enough of them in here."

I stare at him for a minute. "I never thought of that," I say at last. "I guess the Wiz business isn't all it's cracked up to be."

"You see?" he says with a sad smile. "I *knew* you were a kindred spirit."

A guy who's dressed even worse than the Wiz approaches us.

"Go away," says the Wiz.

"Goddamn it!" whines the man. "You help everyone else! I really need it, Wiz!"

"If you're still here when I count to five, I'm calling Homer over and telling him you're harassing me."

The guy mutters an obscenity and wanders off.

"He looked pretty desperate," I say.

"He is," agrees the Wiz. "He's panhandled enough money for a ten dollar bet at his bookie's. He's looking for a longshot, and if it comes in, he'll just spend it on crack." He grimaces. "Let him learn how to read a *Racing Form*, or maybe even work for it."

"So it wasn't that you *couldn't* help him . . ." I say.

"I have an unwanted gift," he explains. "I didn't ask for it, but as long as I've got it, I'll use it the best way I can. And that doesn't include helping a guy cheat on his wife or a druggie score with his pusher."

"Did you just wake up one day and suddenly you were the Wiz?" I asked.

He smiles a wistfully sad smile, closes his eyes, and slowly shakes his head. "I asked a foolish question."

"What question?"

"Better you should remain ignorant," he says.

The wind starts blowing harder.

"You hungry?" he asks suddenly.

I think about it for a moment. "I could eat."

We enter the coffee shop and sit down at a table.

"Where are the menus?" I ask, looking around for one.

“Have a burger,” he says. “That’s all they make until evening.”

“Then why don’t we go to a joint with a better selection?”

“This one suits me fine,” he says.

I see we’re not going to leave, so I order a cheeseburger with grilled onions and a beer. He doesn’t even order; the waitress just says she’s bringing him the usual and he smiles and nods at her.

“So how’s the world treating you, Jake?” he says.

“I’d tell you, but you already know,” I answer.

He smiles. “Just making conversation.”

“It makes more sense for me to ask *you* the questions,” I say.

“That’s what I’m here for.”

“And none of these non-answers that don’t tell me a thing,” I add.

“I’ll answer as best as I can,” he tells me. “And I never lie.”

“How long have you been the Wiz?” I ask. “Surely you weren’t born this way, or everyone would know about you.”

“A long time,” he says with a bittersweet smile.

“Ten years?” I persist. “Twenty?”

“Seventeen years, six months, and eleven days,” he says, and then adds: “But who’s counting?”

“How did you become the Wiz?” I ask. “Is there some wizard’s school you went to?”

“It just happened one day,” he says.

I snap my fingers. “Just like that?”

“Almost.”

“Why aren’t you working for the government?” I ask. “I’ll bet the Defense Department would pay a pretty penny for your skills.”

“I’ve already got more pretty pennies than I need,” he answers. “And I help *people*, not *things*.”

“Does it make you happy—helping people?”

“It did once.”

“Not any more?”

He sighs. “Nothing ever changes. No matter how many people I help, there are always more—and even with the ones I help, like Milton, the fixes are almost always temporary, not permanent.”

Our sandwiches and beers arrive. I take a bite of my cheeseburger. It’s not bad at all.

“So who do you like in tonight’s game?” I ask, changing the subject.

“Like’s got nothing to do with it,” he replies. “The Bulls are gonna make the Knicks look bad.”

I stare at him. “You know,” I say, “it occurs to me that knowing everything isn’t exactly the blessing it seems to be. When was the last time something surprised you?”

“A long, *long* time ago,” he says.

“And it’s not just knowing the races and the market, is it?” I continue. “If some woman agrees to go to bed with you, you knew she would before you asked her. Maybe you didn’t have to ask at all.” I look across the table at him. “You never feel surprised or lucky, do you?”

“Or loved,” he adds. “Just . . . *inevitable*.”

“I’m sorry for you, Wiz,” I say sincerely.

“There are compensations,” he says. “I get to help people.”

“A lot of them would get through the day without your help,” I point out. “Maybe most of them.”

He grimaces and his shoulders seem to sag. “Probably,” he agrees.

“Is *everything* predetermined?” I ask.

"Hardly anything is," he says.

"But—"

"You have free will, Jake," he says. "I could warn you about Rosario's and the elevator, but it was up to you whether or not to take my advice. When you get right down to it, what's the difference between that and choosing to stop at a corner when there's heavy traffic and you see a red light?"

"There are two differences," I answer. "One is that you *knew* I'd take your advice. You could look ahead and see it. And the other is that the red light's always there for everybody, and you aren't."

"Now you're going to make me feel guilty," he says, though he manages a smile.

"I don't mean to," I say.

"I know."

"I'm just starting to realize what your life must be like," I continue. "I wouldn't have it on a bet."

"You don't bet once you're the Wiz," he says gently. "In fact, you *can't* bet, because betting involves the element of chance."

"You should never have volunteered to be a wizard."

"I didn't volunteer." He stares at me. "You have qualities, Jake," he says. "You ask a few questions, and in five minutes you've figured out that the wizard business isn't quite what it appears to be from the outside. I'm curious to know what you'll ask next."

"How about 'What's for dessert?'" I say.

He laughs, and suddenly his melancholy vanishes.

We order vanilla ice cream—it's the only sweet they serve until dinnertime—and then we walk out into the street.

"You didn't pay," I note.

"I did them a favor last week," he replies. "The meal's a *quid pro quo*."

I check my watch. "I've got to get back to the office," I say.

"Thanks for eating with me," he says, shaking my hand. "And for being my friend."

"One of thousands," I suggest.

He shakes his head. "The rest are supplicants."

"Surely you have some friends, too," I say.

"Real friends?" A wistful expression crosses his face. "I had one about eighteen years ago." A pause. "Maybe a little less."

"Just about the time you became the Wiz," I say. "What happened to him?"

"I've no idea," he answers.

"Didn't work out, huh?"

"I guess you could say that."

I think about the Wiz and his one friend all the way back to the office and most of the afternoon.

We meet for lunch a couple of times a week for the next month. He lets a few supplicants interrupt us, and he also refuses to talk to some others, and I can never tell by looking at them what the determining factors are. He talks to some bums and sends others on their way . . . but he also talks to some guys who have their chauffeurs drive them up and sends some of *them* packing too.

"How do you decide who to talk to?" I ask him.

"I thought I told you," says the Wiz.

"There have got to be some gray areas," I say. "The good ones can't all be trying to save their families from ruin and the bad ones can't all be junkies."

"Mostly it's instinct and intuition. Usually I can see what they're going to do with the help I give them, but even that can be misleading."

"So you *can* make mistakes?"

He nods his head. "Yes, from time to time." He smiles. "After all, I'm only human."

I stare at him. "Are you human?"

"I'm as human as you are, Jake," he says earnestly.

"I don't know about that," I say.

"Oh?" he replies, arching an eyebrow.

"It's human to take care of yourself. But you dress like a bum, and you eat all your meals in delis and dives, and if you've squirreled away any money you sure as hell don't use it. Where do you live?"

"Nearby."

"Why don't I think you live in one of these brownstones?" I say.

"Because you're a reasonable man, Jake," he answers. "All I need is a place to sleep."

"When's the last time you showered?"

"Seriously?" he says. A guilty smile crosses his face. "The last time it rained after midnight."

"How can you live like that?" I say in exasperation.

"I used to live in a penthouse," he replies. "Brooks Brothers wasn't upscale enough for my wardrobe. I had a maid *and* a butler, as well as a valet."

"Why did you change?"

"The people who need me the most couldn't find me there," he says.

I shrug and turn my palms up. "How can I answer that?"

He smiles. "You'd feel damned foolish trying, wouldn't you?"

"Yeah."

"That's one of the reasons I like you," he says. "Not everyone is that perceptive." He pauses thoughtfully. "In fact, hardly anyone is. I just had a feeling you could be my friend."

"Your feelings have a way of coming true," I acknowledge. "But you know something interesting?"

"What?"

"You've never asked me if you could be *my* friend."

"That's not as important," he says.

I just stare at him. "Why not?" I say at last.

"You have lots of friends already."

Somehow I get the feeling that that's as close as he's come to a bullshit answer since I've met him.

We keep meeting, and we keep talking, and he *seems* open and friendly, but I can't get over the feeling that he's got some agenda I know nothing about. I still don't know why a reasonably pleasant guy like the Wiz hasn't had a friend in seventeen years, or why he's chosen me out of all the millions who live on this damned island.

We don't do anything but meet and talk, occasionally in delis and coffee shops, now and then in bars, once in a while when the weather's nice just out on a bench where anyone who's looking for him can find him (though everyone who needs him seems to have no trouble finding him wherever we are).

We never go to the Garden for basketball or hockey, we never see a movie or a play; in truth we never get much more than half a block off 34<sup>th</sup> Street. He just wants to visit, to talk about almost anything, and he's always straightforward—or at least I think he is—when we talk about what he calls the Wiz Biz.

"What do you do if someone won't pay you after you've given them a winner or told them how to avoid a mad dog gunman or whatever?" I ask him one day as we're walking down 34<sup>th</sup> Street.

"I'm the Wiz," he says. "I know before I help them if they're deadbeats."



"That's a pretty useful thing to know," I say. "Man's a deadbeat, you send him away."

"Not always."

"Why not?" I ask.

"Maybe his wife or kid is growing a tumor, and he's not insured and hasn't got enough to pay for a doctor. It becomes an ethical question: should *they* suffer because he's a loser?"

"I see," I say. "It's not as simple as it seems at first."

"Nothing ever is," he says.

"Why don't you quit?" I say. "Just walk away from it all?"

"Who'd be here to help them?"

"You've seen enough suffering," I continue. "You've done your share. It's *their* problem."

"Just let them all suffer in pain and poverty when I can prevent it?" he says. "Is that what you'd do?"

I think about it for a long moment. "No," I admit. "That's not what I'd do. It's just what I'd *want* to do."

"I know," he says, and I get the feeling he *does* know.

"When we first met," I say, "I kind of envied you. I really did. I thought you had the greatest gift in the world. But the more we talk about it, the more I hate the choices you have to make day in and day out."

"You learn to live with it," he says.

"I don't know how," I say. "There's so much pain, so much misery in the world. Most people just see a tiny part of it, but you—you see it all." I shake my head. "What must it be like?"

He comes to a stop and grabs my shoulder.

"Say that again!" he says, and there's a hint of excitement in his voice as his fingers dig in.

I stare curiously at him. "What's it like to see the future?"

"And you really want to know?"

"I asked, didn't I?"

"Thank you, my friend," he says with such an air of relief you'd swear he's just run a marathon. "I have been waiting seventeen years for someone to ask me that."

And suddenly his fingers feel like they're dissolving on my shoulder. He seems to grow, not thinner exactly, but somehow less substantial, then translucent, and finally transparent, until there's nothing left of him but a pile of grubby clothes on the ground and the butt of his still-burning cigarette,

All this happens seven years ago. Sometimes it feels like seven centuries.

I am the Wizard of West 34<sup>th</sup> Street. If you've got a problem, or a need, or just a question, come by and tell me about it. There is no situation too dire or too hopeless, nothing so complex that it's beyond my ability to solve. There will be a fee, of course, but you'll be happy to pay it, and I will never ask for it before you are pleased with the results.

I'm always around. If you don't see me on the street, just ask one of the locals, or peek into a restaurant or a bar. There aren't that many of them, and I'll be in one. Don't let my appearance fool you. I've got a Master's degree, I have enough money that I'm not going to con you out of yours, and I guarantee that you won't catch any diseases from me. How I look just isn't important to me any more.

I'm here to answer your questions, so ask me anything you like.

Anything at all.

Please. ○

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# THE WAVES

Ken Liu

**Ken Liu <<http://kenliu.name>> is an author and translator of speculative fiction, as well as a lawyer and programmer. His fiction has appeared in *F&SF*, *Asimov's*, *Analog*, *Clarkesworld*, *Lightspeed*, and *Strange Horizons*, among other places. He lives with his family near Boston, Massachusetts. His third story for us shines a light on the long view of humanity's quest for the stars.**

**L**ong ago, just after Heaven was separated from Earth, Nü Wa wandered along the bank of the Yellow River, savoring the feel of the rich loess against the bottom of her feet.

All around her, flowers bloomed in all the colors of the rainbow, as pretty as the eastern edge of the sky, where Nü Wa had to patch a leak made by petty warring gods with a paste made of melted gemstones. Deer and buffalo dashed across the plains, and golden carp and silvery crocodiles frolicked in the water.

But she was all alone. There was no one to converse with her, no one to share all this beauty.

She sat down next to the water, and, scooping up a handful of mud, began to sculpt. Before long, she had created a miniature version of herself: a round head, a long torso, arms and legs and tiny hands and fingers that she carefully carved out with a sharp bamboo skewer.

She cupped the tiny, muddy figure in her hands, brought it up to her mouth, and breathed the breath of life into it. The figure gasped, wriggled in Nü Wa's hands, and began to babble.

Nü Wa laughed. Now she would be alone no longer. She sat the little figure down on the bank of the Yellow River, scooped up another handful of mud, and began to sculpt again.

Man was thus created from earth, and to earth he would return, always.

"What happened next?" a sleepy voice asked.

"I'll tell you tomorrow night," Maggie Chao said. "It's time to sleep now."

She tucked in Bobby, five, and Lydia, six, turned off the bedroom light, and closed the door behind her.

She stood still for a moment, listening, as if she could hear the flow of photons streaming past the smooth, spinning hull of the ship.

The great solar sail strained silently in the vacuum of space as the *Sea Foam* spiraled away from the sun, accelerating year after year until the sun had shifted into a dull red, a perpetual, diminishing sunset.

*There's something you should see*, João, Maggie's husband and the First Officer, whispered in her mind. They were able to speak to each other through a tiny optical-

neural interface chip implanted in each of their brains. The chips stimulated genetically modified neurons in the language-processing regions of the cortex with pulses of light, activating them in the same way that actual speech would have.

Maggie sometimes thought of the implant as a kind of miniature solar sail, where photons strained to generate thought.

João thought of the technology in much less romantic terms. Even a decade after the operation, he still didn't like the way they could be in each other's heads. He understood the advantages of the communication system, which allowed them to stay constantly in touch, but it felt clumsy and alienating, as though they were slowly turning into cyborgs, machines. He never used it unless it was urgent.

*I'll be there*, Maggie said, and quickly made her way up to the research deck, closer to the center of the ship. Here, the gravity simulated by the spinning hull was lighter, and the colonists joked that the location of the labs helped people think better because more oxygenated blood flowed to the brain.

Maggie Chao had been chosen for the mission because she was an expert on self-contained ecosystems and also because she was young and fertile. With the ship traveling at a low fraction of the speed of light, it would take close to four hundred years (by the ship's frame of reference) to reach 61 Virginis, even taking into account the modest time-dilation effects. That required planning for children and grandchildren so that, one day, the colonists' descendants might carry the memory of the three hundred original explorers onto the surface of an alien world.

She met João in the lab. He handed her a display pad without saying anything. He always gave her time to come to her own conclusions about something new without his editorial comment. That was one of the first things she liked about him when they started dating, years ago.

"Extraordinary," she said as she glanced at the abstract. "First time Earth has tried to contact us in a decade."

Many on Earth had thought the *Sea Foam* a folly, a propaganda effort from a government unable to solve real problems. How could sending a centuries-long mission to the stars be justified when people were still dying of hunger and diseases on Earth? After launch, communication with Earth had been kept to a minimum and then cut. The new administration did not want to keep paying for those expensive ground-based antennas. Perhaps they preferred to forget about this ship of fools.

But now they had reached out across the emptiness of space to say something.

As she read the rest of the message, her expression gradually shifted from excitement to disbelief.

"They believe the gift of immortality should be shared by all of humanity," João said. "Even the furthest wanderers."

The transmission described a new medical procedure. A small, modified virus—a molecular nano-computer, for those who liked to think in those terms—replicated itself in somatic cells and roamed up and down the double helices of DNA strands, repairing damage, suppressing certain segments and overexpressing others, and the net effect was to halt cellular senescence and stop aging.

Humans would no longer have to die.

Maggie looked into João's eyes. "Can we replicate the procedure here?" *We will live to walk on another world, to breathe unrecycled air.*

"Yes," he said. "It will take some time, but I'm sure we can." Then he hesitated. "But the children . . ."

Bobby and Lydia were not the result of chance but the interplay of a set of careful algorithms involving population planning, embryo selection, genetic health, life expectancy, and rates of resource renewal and consumption.

Every gram of matter aboard the *Sea Foam* was accounted for. There was enough

to support a stable population but little room for error. The children's births had to be timed so that they would have enough time to learn what they needed to learn from their parents, and then take their place as their elders died a peaceful death, cared for by the machines.

"... would be the last children to be born until we land," Maggie finished João's thought. The *Sea Foam* had been designed for a precise population mix of adults and children. Supplies, energy, and thousands of other parameters were all tied to that mix. There was some margin of safety, but the ship could not support a population composed entirely of vigorous, immortal adults at the height of their caloric needs.

"We could either die and let our children grow," João said, "or we could live forever and keep them always as children."

Maggie imagined it: the virus could be used to stop the process of growth and maturation in the very young. The children would stay children for centuries, childless themselves.

Something finally clicked in Maggie's mind.

"That's why Earth is suddenly interested in us again," she said. "Earth is just a very big ship. If no one is going to die, they'll run out of room eventually, too. Now there is no other problem on Earth more pressing. They'll have to follow us and move into space."

You wonder why there are so many stories about how people came to be? It's because all true stories have many tellings.

Tonight, let me tell you another one.

There was a time when the world was ruled by the Titans, who lived on Mount Othrys. The greatest and bravest of the Titans was Cronus, who once led them in a rebellion against Uranus, his father and a tyrant. After Cronus killed Uranus, he became the king of the gods.

But as time went on, Cronus himself became a tyrant. Perhaps out of fear that what he had done to his own father would happen to him, Cronus swallowed all his children as soon as they were born.

Rhea, the wife of Cronus, gave birth to a new son, Zeus. To save the boy, she wrapped a stone in a blanket like a baby and fooled Cronus into swallowing that. The real baby Zeus she sent away to Crete, where he grew up drinking goat milk.

Don't make that face. I hear goat milk is quite tasty.

When Zeus was finally ready to face his father, Rhea fed Cronus a bitter wine that caused him to vomit up the children he had swallowed, Zeus's brothers and sisters. For ten years, Zeus led the Olympians, for that was the name by which Zeus and his siblings would come to be known, in a bloody war against his father and the Titans. In the end, the new gods won against the old, and Cronus and the Titans were cast into lightless Tartarus.

And the Olympians went on to have children of their own, for that was the way of the world. Zeus himself had many children, some mortal, some not. One of his favorites was Athena, the goddess who was born from his head, from his thoughts alone. There are many stories about them as well, which I will tell you another time.

But some of the Titans who did not fight by the side of Cronus were spared. One of these, Prometheus, molded a race of beings out of clay, and it is said that he then leaned down to whisper to them the words of wisdom that gave them life.

We don't know what he taught the new creatures, us. But this was a god who had lived to see sons rise up against fathers, each new generation replacing the old, re-making the world afresh each time. We can guess what he might have said.

*Rebel. Change is the only constant.*

\* \* \*



"Death is the easy choice," Maggie said.

"It is the right choice," João said.

Maggie wanted to keep the argument in their heads, but João refused. He wanted to speak with lips, tongue, bursts of air, the old way.

Every gram of unnecessary mass had been shaved off the *Sea Foam's* construction. The walls were thin and the rooms closely packed. Maggie and João's voices echoed through the decks and halls.

All over the ship, other families, who were having the same argument in their heads, stopped to listen.

"The old must die to make way for the new," João said. "You knew that we would not live to see the *Sea Foam* land when you signed up for this. Our children's children, generations down the line, are meant to inherit the new world."

"We can land on the new world ourselves. We don't have to leave all the hard work to our unborn descendants."

"We need to pass on a viable human culture for the new colony. We have no idea what the long-term consequences of this treatment will be on our mental health—"

"Then let's do the job we signed up for: exploration. Let's figure it out—"

"If we give in to this temptation, we'll land as a bunch of four-hundred-year-olds who were afraid to die and whose ideas were ossified from old Earth. How can we teach our children the value of sacrifice, of the meaning of heroism, of beginning afresh? We'll barely be human."

"We stopped being human the moment we agreed to this mission!" Maggie paused to get her voice under control. "Face it, the birth allocation algorithms don't care about us, or our children. We're nothing more than vessels for the delivery of a planned, optimal mix of genes to our destination. Do you really want generations to grow and die in here, knowing nothing but this narrow metal tube? I worry about *their* mental health."

"Death is essential to the growth of our species." His voice was filled with faith, and she heard in it his hope that it was enough for both of them.

"It's a myth that we must die to retain our humanity." Maggie looked at her husband, her heart in pain. There was a divide between them, as inexorable as the dilation of time.

She spoke to him now inside his head. She imagined her thoughts, now transformed into photons, pushing against his brain, trying to illuminate the gap. *We stop being human at the moment we give in to death.*

João looked back at her. He said nothing, either in her mind or aloud, which was his way of saying all that he needed to say.

They stayed like that for a long time.

God first created mankind to be immortal, much like the angels.

Before Adam and Eve chose to eat from the Tree of the Knowledge of Good and Evil, they did not grow old and they never became sick. During the day, they cultivated the Garden, and at night, they enjoyed each other's company.

Yes, I suppose the Garden was a bit like the hydroponics deck.

Sometimes the angels visited them, and—according to Milton, who was born too late to get into the regular Bible—they conversed and speculated about everything: Did the Earth revolve around the Sun or was it the other way around? Was there life on other planets? Did angels also have sex?

Oh no, I'm not joking. You can look it up in the computer.

So Adam and Eve were forever young and perpetually curious. They did not need death to give their life purpose, to be motivated to learn, to work, to love, to give existence meaning.

If that story is true, then we were never meant to die. And the knowledge of good and evil was really the knowledge of regret.

“You know some very strange stories, Gran-Gran,” six-year-old Sara said.

“They’re old stories,” Maggie said. “When I was a little girl, my grandmother told me many stories and I did a lot of reading.”

“Do you want me to live forever like you, and not grow old and die someday like my mother?”

“I can’t tell you what to do, sweetheart. You’ll have to figure that out when you’re older.”

“Like the knowledge of good and evil?”

“Something like that.”

She leaned down and kissed her great-great-great-great . . . —she had long lost count— . . . granddaughter, as gently as she could. Like all children born in the low gravity of the *Sea Foam*, her bones were thin and delicate, like a bird’s. Maggie turned off the nightlight and left.

Though she would pass her four hundredth birthday in another month, Maggie didn’t look a day older than thirty-five. The recipe for the fountain of youth, Earth’s last gift to the colonists before they lost all communications, worked well.

She stopped and gasped. A small boy, about ten years of age, waited in front of the door to her room.

*Bobby*, she said. Except for the very young, who did not yet have the implants, all the colonists now conversed through thoughts rather than speech. It was faster and more private.

The boy looked at her, saying nothing and thinking nothing at her. She was struck by how like his father he was. He had the same expressions, the same mannerisms, even the same ways to speak by not speaking.

She sighed, opened the door, and walked in after him.

*One more month*, he said, sitting on the edge of the couch so that his feet didn’t dangle.

Everybody on the ship was counting down the days. In one more month they’d be in orbit around the fourth planet of 61 Virginis, their destination, a new Earth.

*After we land, will you change your mind about—*she hesitated, but went on after a moment—*your appearance?*

Bobby shook his head, and a hint of boyish petulance crossed his face. *Mom, I made my decision a long time ago. Let it go. I like the way I am.*

In the end, the men and women of the *Sea Foam* had decided to leave the choice of eternal youth to each individual.

The cold mathematics of the ship’s enclosed ecosystem meant that when someone chose immortality, a child would have to remain a child until someone else on the ship decided to grow old and die, opening up a new slot for an adult.

João chose to age and die. Maggie chose to stay young. They sat together as a family and it felt a bit like a divorce.

“One of you will get to grow up,” João said.

“Which one?” Lydia asked.

“We think you should decide,” João said, glancing at Maggie, who nodded reluctantly.

Maggie had thought it was unfair and cruel of her husband to put such a choice before their children. How could children decide if they wanted to grow up when they had no real idea what that meant?

“It’s no more unfair than you and I deciding whether we want to be immortal,”

João had said. "We have no real idea what that means either. It is terrible to put such a choice before them, but to decide *for* them would be even more cruel." Maggie had to agree that he had a point.

It seemed like they were asking the children to take sides. But maybe that was the point.

Lydia and Bobby looked at each other, and they seemed to reach a silent understanding. Lydia got up, walked to João, and hugged him. At the same time, Bobby came and hugged Maggie.

"Dad," Lydia said, "when my time comes, I will choose the same as you." João tightened his arms around her, and nodded.

Then Lydia and Bobby switched places and hugged their parents again, pretending that everything was fine.

For those who refused the treatment, life went on as planned. As João grew old, Lydia grew up: first an awkward teenager, then a beautiful young woman. She went into engineering, as predicted by her aptitude tests, and decided that she *did* like Catherine, the shy young doctor that the computers suggested would be a good mate for her.

"Will you grow old and die with me?" Lydia asked the blushing Catherine one day.

They married and had two daughters of their own—to replace them, when their time came.

"Do you ever regret choosing this path?" João asked her one time. He was very old and ill by then, and in another two weeks the computers would administer the drugs to allow him to fall asleep and not wake up.

"No," Lydia said, holding his hand with both of hers. "I'm not afraid to step out of the way when something new comes to take my place."

*But who's to say that we aren't the "something new"?* Maggie thought.

In a way, her side was winning the argument. Over the years, more and more colonists had decided to join the ranks of the immortals. But Lydia's descendants had always stubbornly refused. Sara was the last untreated child on the ship. Maggie knew she would miss the nightly story times when she grew up.

Bobby was frozen at the physical age of ten. He and the other perpetual children integrated only uneasily into the life of the colonists. They had decades—sometimes centuries—of experience, but retained juvenile bodies and brains. They possessed adult knowledge, but kept the emotional range and mental flexibility of children. They could be both old and young in the same moment.

There was a great deal of tension and conflict about what roles they should play on the ship, and, occasionally, parents who once thought they wanted to live forever would give up their spots when their children demanded it of them.

But Bobby never asked to grow up.

*My brain has the plasticity of a ten-year-old's. Why would I want to give that up?* Bobby said.

Maggie had to admit that she always felt more comfortable with Lydia and her descendants. Even though they had all chosen to die, as João did, which could be seen as a kind of rebuke of her decision, she found herself better able to understand their lives and play a role in them.

With Bobby, on the other hand, she couldn't imagine what went on in his head. She sometimes found him a little creepy, which she agreed was a bit hypocritical, considering he only made the same choice she did.

*But you won't experience what it's like to be grown,* she said. *To love as a man and not a boy.*

He shrugged, unable to miss what he'd never had. *I can pick up new languages quickly. It's easy for me to absorb a new worldview. I'll always like new things.*

Bobby switched to speech, and his boyish voice rose as it filled with excitement and longing. “If we meet new life and new civilization down there, we’ll need people like me, the forever children, to learn about them and understand them without fear.”

It had been a long time since Maggie had really listened to her son. She was moved. She nodded, accepting his choice.

Bobby’s face opened in a beautiful smile, the smile of a ten-year-old boy who had seen more than almost every human who had ever lived.

“Mom, I’ll get that chance. I came to tell you that we’ve received the results of the first close-up scans of 61 Virginis e. It’s inhabited.”

Under the *Sea Foam*, the planet spun slowly. Its surface was covered by a grid of hexagonal and pentagonal patches, each a thousand miles across. About half of the patches were black as obsidian, while the rest were a grainy tan. 61 Virginis e reminded Maggie of a soccer ball.

Maggie stared at the three aliens standing in front of her in the shuttle bay, each about six feet tall. The metallic bodies, barrel-shaped and segmented, rested on four stick-thin, multi-jointed legs.

When the vehicles first approached the *Sea Foam*, the colonists had thought they were tiny scout ships until scans confirmed the absence of any organic matter. Then the colonists had thought they were autonomous probes until they came right up to the ship’s camera, displayed their hands, and lightly tapped the lens.

Yes, *hands*. Midway up each of the metallic bodies, two long, sinuous arms emerged and terminated in soft, supple hands made of a fine alloy mesh. Maggie looked down at her own hands. The alien hands looked just like hers: four slender fingers, an opposable thumb, flexible joints.

On the whole, the aliens reminded Maggie of robotic centaurs.

At the very top of each alien body was a spherical protuberance studded with clusters of glass lenses, like compound eyes. Other than the eyes, this “head” was also covered by a dense array of pins attached to actuators that moved in synchrony like the tentacles of a sea anemone.

The pins shimmered as though a wave moved through them. Gradually, they took on the appearance of pixellated eyebrows, lips, eyelids—a face, a human face.

The alien began to speak. It sounded like English but Maggie couldn’t make it out. The phonemes, like the shifting patterns of the pins, seemed elusive, just beyond coherence.

*It is English, Bobby said to Maggie, after centuries of pronunciation drift. He’s saying “Welcome back to humanity.”*

The fine pins on the alien face shifted, unveiling a smile. Bobby continued to translate. *We left Earth long after your departure, but we were faster, and passed you in transit centuries ago. We’ve been waiting for you.*

Maggie felt the world shift around her. She looked around, and many of the older colonists, the immortals, looked stunned.

But Bobby, the eternal child, stepped forward. “Thank you,” he said aloud, and smiled back.

Let me tell you a story, Sara. We humans have always relied on stories to keep the fear of the unknown at bay.

I’ve told you how the Mayan gods created people out of maize, but did you know that before that, there were several other attempts at creation?

First came the animals: brave jaguar and beautiful macaw, flat fish and long serpent, the great whale and the lazy sloth, the iridescent iguana and the nimble bat.



(We can look up pictures for all of these on the computer later.) But the animals only squawked and growled, and could not speak their creators' names.

So the gods kneaded a race of beings out of mud. But the mud men could not hold their shape. Their faces drooped, softened by water, yearning to rejoin the earth from whence they were taken. They could not speak but only gurgled incoherently. They grew lopsided and were unable to procreate, to perpetuate their own existence.

The gods' next effort is the one of most interest to us. They created a race of wooden manikins, like dolls. The articulated joints allowed their limbs to move freely. The carved faces allowed their lips to flap and eyes to open. The stringless puppets lived in houses and villages, and went busily about their lives.

But the gods found that the wooden men had neither souls nor minds, and so they could not praise their makers properly. They sent a great flood to destroy the wooden men, and asked the animals of the jungle to attack them. When the anger of the gods was over, the wooden men had become monkeys.

And only then did the gods turn to maize.

Many have wondered if the wooden men were really content to lose to the children of the maize. Perhaps they're still waiting in the shadows for an opportunity to come back, for creation to reverse its course.

The black hexagonal patches were solar panels, Atax, the leader of the three envoys from 61 Virginis e, explained. Together, they provided the power needed to support human habitation on the planet. The tan patches were cities, giant computing arrays where trillions of humans lived as virtual patterns of computation.

When Atax and the other colonists had first arrived, 61 Virginis e was not particularly hospitable to life from Earth. It was too hot, the air was too poisonous, and the existing alien life, mostly primitive microbes, was quite deadly.

But Atax and the others who had stepped onto the surface were not human, not in the sense Maggie would have understood the term. They were composed of more metal than water, and they were no longer trapped by the limits of organic chemistry. The colonists quickly constructed forges and foundries, and their descendants soon spread out across the globe.

Most of the time they chose to merge into the Singularity, the overall World-Mind that was both artificial and organic, where eons passed in a second as thought was processed at the speed of quantum computation. In the world of bits and qubits, they lived as gods.

But sometimes, when they felt the ancestral longing for physicality, they could choose to become individuals and be embodied in machines, as Atax and his companions were. Here, they lived in the slow-time, the time of atoms and stars.

There was no more line between the ghost and the machine.

"This is what humanity looks like now," Atax said, spinning around slowly to display his metal body for the benefit of the colonists on the *Sea Foam*. "Our bodies are made of steel and titanium, and our brains graphene and silicon. We are practically indestructible. Look, we can even move through space without the need for ships, suits, layers of protection. We have left corruptible flesh behind."

Atax and the others gazed intently at the ancient humans around them. Maggie stared back into their dark lenses, trying to fathom how the machines felt. Curiosity? Nostalgia? Pity?

Maggie shuddered at the shifting, metallic faces, a crude imitation of flesh and blood. She looked over at Bobby, who appeared ecstatic.

"You may join us, if you wish, or continue as you are. It is of course difficult to decide when you have no experience of our mode of existence. Yet you must choose. We cannot choose for you."

*Something new*, Maggie thought.

Even eternal youth and eternal life did not appear so wonderful compared to the freedom of being a machine, a thinking machine endowed with the austere beauty of crystalline matrices instead of the messy imperfections of living cells.

At last, humanity has advanced beyond evolution into the realm of intelligent design.

"I'm not afraid," Sara said.

She had asked to stay behind for a few minutes with Maggie after all the others had left. Maggie gave her a long hug, and the little girl squeezed her back.

"Do you think Gran-Gran João would have been disappointed in me?" Sara asked. "I'm not making the choice he would have made."

"I know he would have wanted you to decide for yourself," Maggie said. "People change, as a species and as individuals. We don't know what he would have chosen if he had been offered your choice. But no matter what, never let the past pick your life for you."

She kissed Sara on the cheek and let go. A machine came to take Sara away by the hand so that she could be transformed.

*She's the last of the untreated children*, Maggie thought. *And now she'll be the first to become a machine.*

Though Maggie refused to watch the transformation of the others, at Bobby's request, she watched as her son was replaced piece by piece.

"You'll never have children," she said.

"On the contrary," he said, as he flexed his new metal hands, so much larger and stronger than his old hands, the hands of a child, "I will have countless children, born of my mind." His voice was a pleasant electronic hum, like a patient teaching program's. "They'll inherit from my thoughts as surely as I have inherited your genes. And some day, if they wish, I will construct bodies for them, as beautiful and functional as the one I'm being fitted with."

He reached out to touch her arm, and the cold metal fingertips slid smoothly over her skin, gliding on nanostructures that flexed like living tissue. She gasped.

Bobby smiled as his face, a fine mesh of thousands of pins, rippled in amusement. She recoiled from him involuntarily.

Bobby's rippling face turned serious, froze, and then showed no expression at all.

She understood the unspoken accusation. What right did she have to feel revulsion? She treated her body as a machine too, just a machine of lipids and proteins, of cells and muscles. Her mind was maintained in a shell too, a shell of flesh that had long outlasted its designed-for life. She was as "unnatural" as he.

Still, she cried as she watched her son disappear into a frame of animated metal.

*He can't cry any more*, she kept on thinking, as if that was the only thing that divided her from him.

Bobby was right. Those who were frozen as children were quicker to decide to upload. Their minds were flexible, and to them, to change from flesh to metal was merely a hardware upgrade.

The older immortals, on the other hand, lingered, unwilling to leave their past behind, their last vestiges of humanity. But one by one, they succumbed as well.

For years, Maggie remained the only organic human on 61 Virginis e, and perhaps the entire universe. The machines built a special house for her, one insulated from the heat and poison and ceaseless noise of the planet, and Maggie occupied herself by browsing through the *Sea Foam's* archives, the records of humanity's long, dead past. The machines left her pretty much alone.

One day, a small machine, about two feet tall, came into her house and approached her hesitantly. It reminded her of a puppy.

"Who are you?" Maggie asked.

"I'm your grandchild," the little machine said.

"So Bobby has finally decided to have a child," Maggie said. "It took him long enough."

"I'm the 5,032,322th child of my parent."

Maggie felt dizzy. Soon after his transformation into a machine, Bobby had decided to go all the way and join the Singularity. They had not spoken to each other for a long time.

"What's your name?"

"I don't have a name in the sense you think of it. But why don't you call me Athena?"

"Why?"

"It's a name from a story my parent used to tell me when I was little."

Maggie looked at the little machine, and her expression softened.

"How old are you?"

"That's a hard question to answer," Athena said. "We're born virtual and each second of our existence as part of the Singularity is composed of trillions of computation cycles. In that state, I have more thoughts in a second than you have had in your entire life."

Maggie looked at her granddaughter, a miniature mechanical centaur, freshly made and gleaming, and also a being much older and wiser than she by most measures.

"So why have you put on this disguise to make me think of you as a child?"

"Because I want to hear your stories," Athena said. "The ancient stories."

*There are still young people, Maggie thought, still something new.*

*Why can't the old become new again?*

And so Maggie decided to upload as well, to rejoin her family.

In the beginning, the world was a great void crisscrossed by icy rivers full of venom. The venom congealed, dripped, and formed into Ymir, the first giant, and Auðumbla, a great ice cow.

Ymir fed on Auðumbla's milk and grew strong.

Of course you have never seen a cow. Well, it is a creature that gives milk, which you would have drunk if you were still . . .

I suppose it is a bit like how you absorbed electricity, at first in trickles, when you were still young, and then in greater measure as you grew older, to give you strength.

Ymir grew and grew until finally, three gods, the brothers Vili, and Vé, and Odin, slew him. Out of his carcass the gods created the world: his blood became the warm, salty sea, his flesh the rich, fertile earth, his bones the hard, plow-breaking hills, and his hair, the swaying, dark forests. Out of his wide brows the gods carved Midgard, the realm in which humans lived.

After the death of Ymir, the three brother gods walked along a beach. At the end of the beach, they came upon two trees leaning against each other. The gods fashioned two human figures out of their wood. One of the brother gods breathed life into the wooden figures, another endowed them with intelligence, and the third gave them sense and speech. And this was how Ask and Embla, the first man and the first woman, came to be.

You are skeptical that men and women were once made from trees? But you're made of metal. Who's to say trees wouldn't do just as well?

Now let me tell you the story behind the names. "Ask" comes from *ash*, a hard tree that is used to make a drill for fire. "Embla" comes from *vine*, a softer sort of wood that is easy to set on fire. The motion of twirling a fire drill until the kindling is in-

flamed reminded the people who told this story of an analogy with sex, and that may be the real story they wanted to tell.

Once your ancestors would have been scandalized that I speak to you of sex so frankly. The word is still a mystery to you, but without the allure that it once held. Before we found how to live forever, sex and children were the closest we came to immortality.

Like a thriving hive, the Singularity began to send a constant stream of colonists away from 61 Virginis e.

One day, Athena came to Maggie and told her that she was ready to be embodied and lead her own colony.

At the thought of not seeing Athena again, Maggie felt an emptiness. *So it was possible to love again, even as a machine.*

*Why don't I come with you?* she asked. *It will be good for your children to have some connection with the past.*

And Athena's joy at her request was electric and contagious.

Sara came to say goodbye to her, but Bobby did not show up. He had never forgiven her for her rejection of him the moment he became a machine.

*Even the immortals have regrets,* she thought.

And so a million consciousnesses embodied themselves in metal shells shaped like robot centaurs, and like a swarm of bees leaving to found a new hive, they lifted into the air, tucked their limbs together so that they were shaped like graceful teardrops, and launched themselves straight up.

Up and up they went, through the acrid air, through the crimson sky, out of the gravity well of the heavy planet, and steering by the shifting flow of the solar wind and the dizzying spin of the galaxy, they set out across the sea of stars.

Light year after light year, they crossed the void between the stars. They passed the planets that had already been settled by earlier colonies, worlds now thriving with their own hexagonal arrays of solar panels and their own humming Singularities.

Onward they flew, searching for the perfect planet, the new world that would be their new home.

While they flew, they huddled together against the cold emptiness that was space. Intelligence, complexity, life, computation—everything seemed so small and insignificant against the great and eternal void. They felt the longing of distant black holes and the majestic glow of exploding novas. And they pulled closer to each other, seeking comfort in their common humanity.

As they flew on, half dreaming, half awake, Maggie told the colonists stories, weaving her radio waves among the constellation of colonists like strands of spider silk.

There are many stories of the Dreamtime, most secret and sacred. But a few have been told to outsiders, and this is one of them.

In the beginning there was the sky and the earth, and the earth was as flat and featureless as the gleaming titanium alloy surface of our bodies.

But under the earth, the spirits lived and dreamed.

And time began to flow, and the spirits woke from their slumber.

They broke through the surface, where they took on the forms of animals: Emu, Koala, Platypus, Dingo, Kangaroo, Shark . . . Some even took the shapes of humans. Their forms were not fixed, but could be changed at will.

They roamed over the earth and shaped it, stamping out valleys and pushing up hills, scraping the ground to make deserts, digging through it to make rivers.

And they gave birth to children, children who could not change forms: animals, plants, humans. These children were born from the Dreamtime but not of it.

When the spirits were tired, they sank back into the earth from whence they came. And the children were left behind with only vague memories of the Dreamtime, the time before there was time.

But who is to say that they will not return to that state, to a time when they could change form at will, to a time where time had no meaning?

And they woke from her words into another dream.

One moment, they were suspended in the void of space, still light years from their destination. The next, they were surrounded by shimmering light.

No, not exactly *light*. Though the lenses mounted on their chassis could see far beyond the spectrum visible to primitive human eyes, this energy field around them vibrated at frequencies far above and below even their limits.

The energy field slowed down to match the subluminal flight of Maggie and the other colonists.

*Not too far now.*

The thought pushed against their consciousness like a wave, as though all their logic gates were vibrating in sympathy. The thought felt both alien and familiar.

Maggie looked at Athena, who was flying next to her.

*Did you hear that?* they said at the same time. Their thought strands tapped each other lightly, a caress with radio waves.

Maggie reached out into space with a thought strand, *You're human?*

A pause that lasted a billionth of a second, which seemed like an eternity at the speed they were moving.

*We haven't thought of ourselves in that way in a long time.*

And Maggie felt a wave of thoughts, images, feelings push into her from every direction. It was overwhelming.

In a nanosecond she experienced the joy of floating along the surface of a gas giant, part of a storm that could swallow Earth. She learned what it would be like to swim through the chromosphere of a star, riding white-hot plumes and flares that rose hundreds of thousands of miles. She felt the loneliness of making the entire universe your playground, yet having no home.

*We came after you, and we passed you.*

*Welcome, ancient ones. Not too far now.*

There was a time when we knew many stories of the creation of the world. Each continent was large and there were many peoples, each told their own story.

Then many peoples disappeared, and their stories were forgotten.

This is one that survived. Twisted, mangled, retold to fit what strangers want to hear, there is nonetheless some truth left in it.

In the beginning the world was void and without light, and the spirits lived in the darkness.

The Sun woke up first, and he caused the water vapors to rise into the sky and baked the land dry. The other spirits—Man, Leopard, Crane, Lion, Zebra, Wildebeest, and even Hippopotamus—rose up next. They wandered across the plains, talking excitedly with each other.

But then the Sun set, and the animals and Man sat in darkness, too afraid to move. Only when morning came again did everyone start going again.

But Man was not content to wait every night. One night, Man invented fire to have his own sun, heat and light that obeyed his will, and which divided him from the animals that night and forever after.



So Man was always yearning for the light, the light that gives him life and the light to which he will return.

And at night, around the fire, they told each other the true stories, again and again.

Maggie chose to become part of the light.

She shed her chassis, her home and her body for such a long time. Had it been centuries? Millennia? Eons? Such measures of time no longer had any meaning.

Patterns of energy now, Maggie and the others learned to coalesce, stretch, shimmer, and radiate. She learned how to suspend herself between stars, her consciousness a ribbon across both time and space.

She careened from one edge of the galaxy to the other.

One time, she passed right through the pattern that was now Athena. Maggie felt the child as a light tingling, like laughter.

*Isn't this lovely, Gran-Gran? Come visit Sara and me sometime!*

But it was too late for Maggie to respond. Athena was already too far away.

*I miss my chassis.*

That was Bobby, whom she met hovering next to a black hole.

For a few thousand years, they gazed at the black hole together from beyond the event horizon.

*This is very lovely, he said. But sometimes I think I prefer my old shell.*

*You're getting old, she said. Just like me.*

They pressed against each other, and that region of the universe lit up briefly like an ion storm laughing.

And they said goodbye to each other.

*This is a nice planet, Maggie thought.*

It was a small planet, rather rocky, mostly covered by water.

She landed on a large island, near the mouth of a river.

The sun hovered overhead, warm enough that she could see steam rising from the muddy riverbanks. Lightly, she glided over the alluvial plains.

The mud was too tempting. She stopped, condensed herself until her energy patterns were strong enough. Churning the water, she scooped a mound of the rich, fertile mud onto the bank. Then she sculpted the mound until it resembled a man: arms akimbo, legs splayed, a round head with vague indentations and protrusions for eyes, nose, mouth.

She looked at the sculpture of João for a while, caressed it, and left it to dry in the sun.

Looking about herself, she saw blades of grass covered with bright silicon beads and black flowers that tried to absorb every bit of sunlight. She saw silver shapes darting through the brown water and golden shadows gliding through the indigo sky. She saw great scale-covered bodies lumbering and bellowing in the distance, and close by, a great geyser erupted near the river, and rainbows appeared in the warm mist.

She was all alone. There was no one to converse with her, no one to share all this beauty.

She heard a nervous rustling and looked for the source of the sound. A little ways from the river, tiny creatures with eyes studded all over their heads like diamonds peered out of the dense forests, made of trees with triangular trunks and pentagonal leaves.

Closer and closer, she drifted to those creatures. Effortlessly, she reached inside them, and took ahold of the long chains of a particular molecule, their instructions for the next generation. She made a small tweak, and then let go.

The creatures yelped and skittered away at the strange sensation of having their insides adjusted.

She had done nothing drastic, just a small adjustment, a nudge in the right direction. The change would continue to mutate and the mutations would accumulate, long after she left. In another few hundred generations, the changes would be enough to cause a spark, a spark that would feed itself until the creatures would start to think of keeping a piece of the sun alive at night, of naming things, of telling stories to each other about how everything came to be. They would be able to choose.

*Something new in the universe. Someone new to the family.*

But for now, it was time to return to the stars.

Maggie began to rise from the island. Below her, the sea sent wave after wave to crash against the shore, each wave catching and surpassing the one before it, reaching a little further up the beach. Bits of sea foam floated up and rode the wind to parts unknown. ○

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# Flower Power

Dinosaurs  
couldn't stomach flowers—  
the fleshy petals  
engorged with juices,  
the rude displays  
of inflamed colors,  
aroused stamens  
cavorting in the breeze,  
skin perfumed from within—  
the whole  
combining and entwining  
pollination dance.

Relic of a bygone era,  
raised on the rough, spiny edges  
of gymnosperm manners,  
I, too, already starved,  
will be blasted aside before  
the cataclysmic appearance  
of some species knockout beauty event,  
wither beneath ensuing glacial caresses  
and go extinct.

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# THE BLACK FEMINIST'S GUIDE TO SCIENCE FICTION FILM EDITING

Sandra McDonald

**Four of Sandra McDonald's stories have been noted by the James A. Tiptree Award Honor List for excellence in exploring gender roles and stereotypes. Her first collection of speculative fiction was a Booklist Editor's Choice, an American Library Association "Over the Rainbow" book, and winner of a Lambda Literary Award. This year, her first novel for LGBTQ teens, *Mystery of the Tempest*, was a ForeWord Book of the Year finalist. Sandra is a big fan of SF pioneer Leigh Brackett, whose influence shows in her Outback Stars series from Tor, as well as in her latest tale for *Asimov's*.**

**S**cene one: a dingy hotel room at night. A somber man sits at a computer while police gather outside. His name is Neo. He works for the mysterious figure known as Morpheus. They are monitoring brilliant young hacker Tina Anderson, codenamed Trinity, who unwittingly lives in the construct called *The Matrix*. Neo's job will be to look handsome, deliver plot information as necessary, and help Trinity defeat the evil cyber-overlords.

The newly compiled footage loops on my monitor. Keanu Reeves has been dead for decades, but Neo will make the perfect sidekick.

"I still think you should swap Morpheus and Switch," says my co-worker, Gloriana, from one cubicle over. She's rebuilding *Star Wars: A New Hope*, the story of a young farmgirl on a quest to save Prince Luke from an evil empire. I wish she would focus more on her own work than mine, but she's still sore about getting stuck with George Lucas.

That's our job, you see: film reconstruction. Correcting the cinematic injustices of the past with modern, thoughtful, gender-balanced versions.

On Gloriana's monitor, Leia Skywalker stares wistfully at the sunset while in-

spiring music plays in the background. Gloriana changes the angle and says, "Trinity needs a female mentor. Switch is the only member of the ship's crew to dress in white, which is obviously a goddess reference."

There's a slight shadow on Keanu's face. I touch in an adjustment. "I'll make it clear that Morpheus is subordinate to the Oracle. She's the strong crone presence who guides Trinity to her destiny."

"But the training scenes in the dojo construct will show a dominant male archetype physically and psychologically aggressive toward a woman," Gloriana replies. "Is that what you want young girls to see?"

Of course not. No one does. But I have a soft spot for Fishburne, especially his later work in the reboot of *The Last Starfighter* as a post-apocalyptic tale of redemption. He reminds me of my dad, maybe, with his calm gaze and powerful voice. I should call my parents more often, I think, adding that to the never-ending to-do list.

Patiently I say, "I'll deal with the dojo when I get there. You just worry about Aunt Beru."

"No worries at all, my friend. By the time I'm done with her, she'll be the baddest pistol-packing matriarch to ever make the Kessel run in twelve parsecs."

Gloriana's ancestors came from China. Mine came from Africa. You don't see many people with our skin color in old science fiction films, not unless they're the disposable extras. We've brought that up in staff meetings, how we should challenge racial norms while we upend gender stereotypes, but re-establishing women is always our first consideration. We can rework existing characters in a film—and by rework I mean everything from new shots, new scenes, and new dialogue—but we're required to use the images of the original actors. We can't create entirely new people.

"And here's Minervadiane!" says a hearty voice coming down the hallway. "She won an award for *Star Trek* last year."

"Oh, I loved that!" is the response. "Captain Uhura is the burn."

Gloriana grimaces. She's still stink-eyed about my win, which overshadowed her work making Denise Richards the true heroine of *Starship Troopers*. The loud voice belongs to Sabilia, our boss, who is six feet tall and utterly brilliant. She created the technology we use to manipulate billions of pixels each night. As director of our agency, the Women's Movie Bureau (WoMB), she has provided positive role models for millions of women around the globe. She also puts the G into Glamour. No matter what her outfit—vanilla silk suit, pink leather trousers, combat camisole—she always tops off the look with a scarf that shimmers like gold fireflies at dusk.

With her now is an intern who looks Hispanic and has a strong handshake for someone who is, what, fourteen years old? Schools keep churning them out younger and younger these days.

"I'm Ann," the intern says.

Gloriana sniffs. "What a quaint old-fashioned name."

"Short for Annastacialiese," Ann adds.

"I'm leaving Ann to learn from the best," Sabilia says. Already she's halfway down the hall again. Like a firefly, you can't pin Sabilia down. "Teach her well, Minervadiane!"

Ann pulls over a stool and peers up at my monitor. "Carrie-Ann Moss is really acid."

I'm only about five years older than she is—okay, maybe six or seven—but who can keep track of all the hip language these days? I hope "acid" is a good thing, because we've got a lot of Moss ahead of us.

"Where'd you study?" I ask.

"ReDreamWorks," she replies, and okay, that's impressive. Excellent program. She's probably been splicing her own vids for years, snooked into global entertain-

ment 24/7, spinning out her bright digital dreams. But the work we do here is much more complex and important. If it weren't for reconstruction, people would think Arnold Schwarzenegger was the star of *Total Recall* and not Sharon Stone. They'd believe that Sylvester Stallone defeated Wesley Snipes in *Demolition Person* instead of giving credit to supercop Sandra Bullock. And of course there's *Back to the Future*, with Lea Thompson's heroic efforts to save her youngest son Marty from a mad scientist's time-traveling clutches.

Ann tilts her head at the screen. "I hope you make Switch the captain of the Nebuchadnezzar. She's clearly the goddess figure."

"You can stay, kid," Gloriana says, just as Aunt Beru shoots a bounty hunter in the Mos Eisley cantina.

It's only eight o'clock. This is going to be a long night. Little do I know that the first act turning point is on its way.

If you studied screenwriting during a certain period of history, say 1980–2020 or so, you were taught that a movie contains a certain number of dramatic acts, and each act ends on a plot point that increases the stakes for the hero on her journey. Take *Avatar*, the story of an alien woman's fight to save her people from greedy male Earthlings. In the first act we establish her dominant role in her tribe; the first turning point comes when she sees the Earth spaceship drop out of the sky. No modern filmmaker worries much about linear narratives, but I edit classic texts. I'm always thinking of where the story goes next.

Just after midnight Sibia calls me to her office. It's up on the third floor, past the cubicles where Irene Adler and Vivian Rutledge are solving mysteries with the help of their respective sidekicks, Dr. Watson and Philip Marlowe. I never liked working in the Mystery Department. Too many killings, not enough spaceships. If I couldn't work in Science Fiction, I'd ask for Musicals. Every girl deserves a scene like the one with Debbie Reynolds singing and dancing in the rain.

The gleam in Sibia's eyes is as bright as the fireflies in her scarf.

"The only existing copy of *The Ginger Star*," she says, handing me a thinsheet.

*The Ginger Star!* The Holy Grail in the Greek pantheon of science fiction films, or some mixed metaphor like that. The thinsheet plays a grainy video clip of a spaceship zooming over a planet. It has the look of a 1970s science fiction movie, but it could easily be fake, too.

I ask, "What? Someone just happened to find a copy in a cardboard box in her basement?"

"Not just someone," Sibia says. "The granddaughter of Sir Finlay Vancott, winner of three Academy Awards as well as the editor's guild Lifetime Achievement Award. She says he left behind a vault of film stock and vintage equipment in his old house. She's getting rid of everything. She asked for you specifically because she saw how you fixed *Blade Runner*."

That was one of my favorite projects: Rachel, a private eye in the dystopian future, fights to save her cybersisters Pris and Zhora from the deranged policeman trying to kill them.

"No one's ever proved Finlay Vancott edited *The Ginger Star*," I say.

"No one's ever proved he didn't. Just as no one has ever proved that Irving Kershner directed it and Doug Trumbull did the special effects and Leigh Brackett wrote the script herself. Any contemporary records were lost in the big flood of '19. All we've got now are a bunch of legends and rumors and this one little old lady in her decline. Minervadiane, you have to go check this out. Get her to sell it to us."

"How much can we offer?"

"As little as possible."



I'm really not interested in swindling some dotty old widow. "What about *The Matrix*? I just can't stop—"

"Use the intern! She can handle small things until you get back."

End of act one: I'm on my way to something big.

Of course no one travels by daylight anymore, and everyone lives on mountain-tops, so it's not until the next night that my plane descends vertically into the thin trees of the Blue Ridge Forest and I stagger out on the launch pad. So much for that motion-sickness pill. Ms. Amelia Corinne Rawley lives far enough away that I've had to arrange for a private car. When I get to the parking lot, I see that the automated driver is on the fritz. That's the only possible explanation for the open hatch and the man leaning beside it with an insufferable grin on his face.

"Nice to see you, Minnie," he says.

I drop my suitcase close enough to his feet that he flinches. "What are you doing here, Samueldarrin?"

"She invited Ringo Cross," he says. "Says she's got *The Ginger Star* and wants the best person to carry on her old grandpa's legacy."

This is beyond appalling. I'd turn around and march right back onto that plane if I thought I could keep my lunch down and my job afterward. Samueldarrin keeps grinning like a little kid on Christmas morning instead of a handsome, irritating, smart, smug bastard who calls himself *Ringo Cross* instead of the perfectly good name his mother gave him.

"As if your work is any way legitimate," I retort.

He oozes faux surprise. "You can't still be mad about *The Handman's Tale*."

"You desecrated Atwood's story!"

"The same way you desecrate films every day, darling." That's an argument he's tried before, as if what he does out of spite can in any way compare to what the government does to correct injustice. Samueldarrin pats the hatch. "Come on, let's go. Don't you want to get there before sunrise?"

"This is my car, all paid for. Find your own."

"This is Ms. Rawley's car that she sent herself. Yours got a virus and called in sick."

This is probably true. East Coast cars are notoriously unreliable. I grab my suitcase and slide past him onto the fake leather seat. "Fine. Just don't try to amuse me with news of your latest exploits."

"I wouldn't," he says, and then for the next ten miles that's all he does.

We met in college. It wasn't an auspicious start: he was sneaking out of the men's dorm past curfew and I was coming up the path, exhilarated from an all-night editing spree on my senior project, *Heroines of the Reel Revolution*. After he fell off the trellis and landed on me and campus security got called in, I learned that he was a first year student in my own program. He was lucky the school didn't expel him for nearly killing me, or for his numerous unorthodox views, or for associating with dubious characters in the outlaw film community.

We may have slept together once or twice. Maybe the night before graduation. Maybe the week after. But that was before I saw his term project that re-edited Margaret Atwood's classic story of female oppression into a feel-good story celebrating the patriarchy.

"—and then we went to the after-party and saw Edwardson, you remember him, and it was almost noon and we were still drunk—"

I grit my teeth. He knows that the proper re-name is Edwardheir, and he knows that it will annoy me. His first goal in life is to irritate people, and his second goal is to make money off that irritation.

"Do the women you date find your blathering at all interesting?" I ask.

“They find it fascinating. Do the men you date find your incessant frowns beautiful?”

“Not just beautiful, but *gorgeous*.”

He arches a carefully plucked eyebrow. “You would never abandon your misguided quest long enough to even have dinner with a guy.”

“You would never cease your self-promotion long enough to even look at a woman,” I reply.

The grin is back. “Oh, I look. I look a lot. Chicks dig rogue media celebrities.”

*Chicks*. Warn him that he could be arrested for discriminatory language, and he’ll just come up with something worse: *babes, bitches, sluts*—

I’m getting a headache. I could blame motion sickness and the scenery sliding by in the darkness outside, but I’d rather blame him. “In no way are you a celebrity.”

“I know that you keep track of my achievements. Wasn’t that you who left a blistering note after my award for *Captain Chokotay Saves the Universe*?”

“No one could possibly award that.”

“You should see what I’m doing now to *Aliens*.”

I gasp. “You wouldn’t!”

“*Corporal Hicks and the Facehugger*.” He wriggles those perfectly shaped eyebrows at me and then peers out the window. “Oh, look, we’re here.”

Ms. Rawley lives in a long, sprawling ranch house with dark windows and extensive xeriscaping. She answers the door herself—tall, skinny, with long gray hair and an aquamarine jumpsuit dusted with sawdust. She’s eighty years old and as dark as I am, although Finlay Vancott was as fair-skinned as anyone could be.

“I’m so glad you’re here!” she says. “Come on in and ignore the burning smell. I was cutting the head off a finishing nail.”

Stepping into her house is like stepping into a museum that has suffered a collision with a junk heap. Vintage movie posters from the 1990s and 2000s hang on the living room walls, each beautifully framed, but you can barely see them through stacks of books (paperbacks, very obsolete) and piles of decorative cardboard and plastic boxes. The ceiling is painted gold, and there’s a gilded animal cage, very tall, against one wall. The cage door is open.

“My boys are around here somewhere,” Ms. Rawley says, as proud as any mom. “Mike and Ike. They don’t bite.”

“And Mike and Ike are. . . ?” Samueldarrin asks.

“Flying squirrels,” she says. “Go on into the sunroom and I’ll get us some hot tea.”

The sunroom is less cluttered, but you still wouldn’t want the fire department inspecting it. The windows are heavily screened, of course. The furniture is bamboo and there’s a ceiling fan spinning overhead. Samueldarrin settles into a chair and stretches out his long legs. He’s wearing vintage blue jeans. Completely unfashionable and ridiculously tight.

He asks, “You don’t think she lets those squirrels run around all day, do you?”

“Maybe they’ll nibble some sense into you,” I reply. “Corporal Hicks, indeed! Why don’t you just call it *White Guys Save the Universe Again*?”

He perks up. “Do you think that’ll sell more copies?”

No one buys his movies. No one with taste, that is. He doesn’t have access to real technology, so he resorts to making his own parodies with live actors (they work for the “exposure”) and live film crews (more expensive) and relies on guerilla marketing to the misogynists. His version of *Kill Bill* has a PMS-crazed assassin trying to kill a peaceful monk played by David Carradine. He remade *The Hunger Games* so that Peeta wins instead of Katniss. His *Twilight* is about a vampire stalked by a sulky teenager who will stop at nothing to bear his demon spawn.

Actually, that one was much better than the original.

Ms. Rawley returns with a tea tray. Samueldarrin looks entirely too pleased to be served by a woman. Once our cups are filled, she says, "It was one of my grandfather's lifelong regrets that *The Ginger Star* was never finished and distributed. So groundbreaking, he said, and so sadly abandoned. He was such a fan of Leigh Brackett, you see. And Kershner! He never forgave him. The bad blood persisted until both of them died."

Samueldarrin leans forward, elbows on his knees, almost sloshing tea on himself. "So the rumor of the feud is true?"

"Feud, indeed," she says. "My grandfather never forgave Kershner for quitting the project to go make a James Bond movie."

"Surely Kershner had his own reasons," I put in.

"Of course!" Ms. Rawley brushes sawdust from her overalls. "The movie had already consumed several years of his life. He'd had to turn down George Lucas's offer to direct *The Empire Strikes Back*. Turnbull couldn't nail down the special effects, Vangelis felt his music was all wrong, and the studio kept wanting to insert a clunky narration to explain the plot. My grandfather tried to finish it on his own, but eventually he too had to move on."

"Ms. Rawley, what would you like to see happen with this film?" I ask.

She gazes at us squarely. "I want an end to this story. People should remember and celebrate my grandfather's achievements. And Brackett's story, and Kershner's direction, and of course the actors. I will entrust it to the person with the best plan to ensure its legacy."

"That'll be me," Samueldarrin says instantly.

"It'll be me," I say, just as quickly.

She smiles. "If you'll excuse me, I forgot the honey."

Ms. Rawley leaves us alone. Samueldarrin says, with a narrow gaze, "I can't believe you just lied to that lovely old lady."

"What lie?" I demand.

"If you get your whitewashing feminist mitts on it, who knows what irreversible damage you'll do?"

"Two words," I say. "Margaret Atwood."

We fume at each other for several minutes before I realize Ms. Rawley hasn't come back. I hope she hasn't fallen down or gotten sick. I follow the faint burning smell to a large, outdated kitchen in the messy process of renovation. Ms. Rawley is on her hands and knees on the floor, painstakingly slotting together new, honey-colored wooden boards. Rags and other supplies are spread on the countertops.

"Ms. Rawley, can I help you with that?" I ask.

She looks up, startled. "Who are you?"

I'd say she was kidding, except for the abject fear in her eyes.

"It's me, Minervadiane. I'm here about the movie, remember?"

For a moment, no, she doesn't remember at all. She's wide-eyed and tense, her hand tight on that hammer. Slowly, though, memory creeps back into her expression. She laughs a tiny bit, forcefully.

"Of course you are," she says. "I thought you and your boyfriend went to bed. Didn't we already say good night?"

Alzheimer's disease is what we call a plot complication.

Leigh Brackett was a pioneering female writer who wrote during the Golden Age of science fiction. Stories like hers promised a future full of interstellar adventure. My generation hasn't even reached Mars yet. Brackett and her peers lived in awe of new scientific achievements such as computers, nuclear power, and rocket ships. They didn't have to cower inside each day, afraid of the blistering light of the sun.

She was a good writer, but science fiction didn't pay nearly as much as screenwriting, and most of her later life was spent working in film and television.

Sometime in the mid-1970s, she adapted her own novel *The Ginger Star* into a movie script. It's about a mercenary named Eric John Stark in search of his missing mentor. No one was interested. Then *Star Wars* and *Close Encounters of the Third Kind* proved that sci-fi could make tons of money selling tickets to people who had no interest in SF literature. At some point Kershner came onboard, along with his favorite editor Finlay Vancott. Brackett died. The script got rewritten. It got rewritten again, some say by Harlan Ellison™. It went into production, but the shooting was hampered by cost overruns, bad weather, and studio meddling. It was never finished and never released.

Now it's right in front of me. Several cannisters of 35mm celluloid film, which would have disintegrated into nothingness by now if Vancott hadn't built a climate-controlled vault down here in the bedrock of the mountain. The film smells faintly of vinegar and I'm afraid to touch it, even with cotton gloves on. According to the typewritten notes (typewritten!), the movie was shot in VistaVision, a format completely obsolete today. Three enormous boxes hold the storyboards, shooting script, production schedules, dailies logs, Kershner's notes, and just about anything else Vancott could scavenge from the shoot.

In the low, long room outside the vault there are also some large console devices that look like they come from a spaceship set.

"Oh, baby," Samueldarrin says, running his hands over the nearest one. "Come to daddy."

"Since when do you have a fetish for props?" I ask.

He shakes his head sadly. "You don't even know what this is, do you? Never seen one. Never touched it. Never known the pleasure of a razor and tape. This is a KEM flatbed editor. That's a Steenbeck over there. And that upright one, a Moviola."

It's one thing to know from history class that people had to actually cut and splice film together. It's quite another to see the machines themselves. The process is crude, laborious, and so much less flexible than what we do today. You might as well operate on the human body with a scalpel.

"Ms. Rawley says she wants us to use these machines to edit our own workprints, as her grandfather would have done," Samueldarrin adds.

"She did not."

"She did. You were on the phone. You know, her memory's not nearly as bad as you think it is. Sure, she put the toaster in the oven and keeps forgetting my name. But who doesn't have momentary lapses now and then?"

I turn away and go back to examining the film. "I'd like to forget your name, too."

"How was your call with that soul-sucking boss of yours? Is Sibilina satisfied with global domination yet?"

The conversation had not gone well. First I'd talked with Ann, who reassured me she was not messing up my project and then made an offhand comment about using the Oracle in the dojo scene. I admonished her sternly and then put her to work seeing if Ms. Rawley had any living descendents. When I talked to Sibilina, she was completely against releasing any special "Vancott" version of *The Ginger Star*, because obviously he was steeped in the male twentieth-century social construct and his vision would automatically include severe gender oppression.

"Say whatever you need to appease her," Sibilina said, "and then we'll make our own cut."

"I don't want to be unethical—" I started.

That was the completely wrong thing to say, of course, and earned me an unnecessary fifteen minute lecture about Hollywood's history of female repression and sub-

jugation, as if I were an idiot who'd never seen a Michael Bay movie or any installment of *Harry Potter*. Meanwhile Samueldarrin was having breakfast with Ms. Rawley, no doubt charming her in that ridiculous easy smiling way of his.

He plops down on the stool in front of the KEM and says, "I came knocking on your door today."

"Really? I thought that was the squirrels."

"I thought maybe you'd want to get reacquainted."

I smile sweetly. "I'd rather kiss a rodent."

Ms. Rawley descends the stairs behind us. She's back in her dirty coveralls, with a tool belt around her waist and a pencil tucked behind one ear. Maybe I should make a documentary series about elderly women tackling their own home renovations. It'd be a hit on HHGTV, *Her Home and Garden Television*.

She asks, "Do you two have everything you need?"

"Absolutely not," Samueldarrin says. "We need you here with us to help interpret your grandfather's vision."

She blushes. "I'm not a cinematic visionary like you two are. The home theater is down that hall. Enjoy!"

For all his smugness, Samueldarrin hasn't actually ever handled celluloid. Neither have I. We can't afford to scratch, tear, or damage the film, but Vancott's workprint has to be mounted and threaded through a projector that looks ready to mangle our fingers. After two hours and some serious online research we get the movie running. For one brief, shining moment, the frames and images flicker against the screen. For the first time in sixty years, *The Ginger Star* lives.

The bulb pops and goes dark.

"I hope he packed a spare," Samueldarrin mutters.

Up above us, Ms. Rawley bangs away with her hammer.

It takes us until midnight to change the bulb (glass!), get the film loaded properly (somehow we mounted it upside down), and the sound synched (because I'm sure the actors are not supposed to be speaking backward). After that, we sit in Vancott's little home theater (oversized velvet chairs, surprisingly comfortable) that still smells, all these years later, of cigarette smoke.

"We need popcorn," I say.

Samueldarrin pulls out a silver flask and two paper cups. "Here's something better. A toast to *The Ginger Star*!"

Whiskey. It burns, but in a good way.

Above us, shimmering dust motes. The movie's story is unremarkable: a hero, a quest, an alien planet, adversity, obstacles, failures, triumphs. But after ten minutes it's obvious why the studio balked. Against what had to be enormous social pressure,

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Kershner was faithful to Brackett's vision of a dark-skinned hero. There he is on the screen, Eric John Stark, steely-eyed and the same color as I am.

Samueldarrin leans forward. "That's Cleavon Little! He bulked up a lot."

"Who?"

"Starred in *Blazing Saddles*."

"Never heard of it."

"It's on the Red List."

It figures that Samueldarrin would have seen a film specifically banned for unforgivable misogyny. "Was he any good?"

"He was great. But only one major success, really. He died when he was fifty or so." Samueldarrin rummages through one of the boxes of notes. "Where's that cast list?"

Stark's adventure takes place on the planet Pax, which unsurprisingly looks like California's Santa Monica mountains. The heroine is a priestess named Gerrith, who in the original work had "bronzy" skin. Here, that means a white woman with a lot of paint on her. Samueldarrin comes up with the actor's name: Jenny Harris. Neither of us has ever heard of her. She's wearing a skimpy outfit, as most science fiction priestesses did, and a ridiculous hairstyle. In scene after scene, she gazes adoringly at Stark like a lovestruck puppy.

The rough cut ends before the climactic sequence where Stark faces down the enormous fanged beasts known as Northhounds and becomes their leader. Given the limits of 1970s technology, I can't imagine how Kershner filmed the Northhounds. Green screen? Cloth puppets? Maybe little pieces of clay in stop-animation. How sad those days were.

"Let's watch it again," Samueldarrin says. "Another toast!"

More whiskey doesn't improve the viewing. The sound is untreated and entirely missing in some scenes, with chunks of dialogue absent. There are no titles, composites, or graphics. There are some crude special effects, including plastic models dangling by wires. Some scenes are too long and others too short. But there's potential here. Once the cut is digitized, I can rework it into the story of Gerrith, a mercenary-priestess who agrees to help a handsome but inept offworlder. She'll defeat the Northhounds through feminine wisdom instead of brute strength. The original was limited by analog editing and masculine prejudice. My reconstruction will make Gerrith shine.

"Damn straight," Samueldarrin says, after I blurt out my best ideas. "Here, have another drink."

Toasting to the future success of *The Ginger Star* is the last thing I remember.

I wake up several hours later to a strange humming-clacking noise. My tongue is all fuzzy, my neck hurts from hours of being cricked, and there's a pounding in my skull that I blame entirely on Samueldarrin.

"She lives!" he says when I emerge from the home theater. He's bent over the KEM, cheerfully and completely destroying the film stock. I might hyperventilate. Sixty-year-old celluloid in little curled snips on the floor—

I flip off the power switch. "What the hell are you doing?"

"Editing!"

"Are you crazy? You can't just cut it up without giving me a chance, too!"

He gives me a hurt look. "You think I'm completely unethical? Vancott made two extra sets of everything. You'll get your own chance to play."

Play. As if *The Ginger Star* is a toy. And maybe to him and other men, stories are just toys that you pick up and play with and disregard when they're no longer amusing. But to Sibilina and me, stories mean more than that. Stories taught women courage when we felt isolated and alone, when we were told we were inconsequen-

tial and incompetent. Stories helped us unite and grab the power that men wouldn't give us. Stories teach us not only how the world is, but how it should be.

I glower at him. "You got me drunk on purpose so you could get a jump start."

"Don't blame me if you can't hold your booze," he says sharply. "You're a grown woman capable of making your own decisions. I'm not your father or patriarch or oppressor just because I shared my whiskey with you."

I stomp upstairs. The flying squirrels give me a baleful look from their perches above their cage. Being male, of course they're taking Samueldarrin's side. Ms. Rawley is on the kitchen floor again, sawdust clinging to her skin, mouth set in a purposeful line. About half of the new boards are in place, while the rest are propped against the counters.

"Ah, there you are, Adeline Lynn," she says, glancing upward.

"It's me, Ms. Rawley. Minervadiane."

She doesn't even blink. "Of course you are. There's leftover chili and biscuits in the oven. Help yourself."

Adeline Lynn Fagins was part of my senior project, *Heroines of the Reel Revolution*. She was the first female director to break through the Hollywood gender ceiling into blockbuster success. Sure, there'd been pioneers like Jane Campion, Sofia Coppola, and Kathryn Bigelow. But Adeline came along with her vision and imagination and brought millions of people back to the public theaters they'd long ago abandoned. She scored success after success until finally the male-dominated Academy of Motion Picture Arts and Sciences could ignore her no longer. Finlay Vancott was her editor on several early projects. It's possible that Adeline visited this house and that Ms. Rawley met her as a child. That Adeline walked this floor that Ms. Rawley is ripping up and replacing.

Or maybe Adeline is another flying squirrel. It's hard to tell.

I crouch down. "I wish you'd let me help you."

She leans back for a brief rest. "Young lady, I've been fixing this house since before you were born. What do I need help for? My father taught me everything I needed to know. These are his tools and his nails. When I'm too old to swing this hammer, I'll be too old to breathe."

I sit down beside her. "May I ask you something? Do you remember what I do?"

She gazes at me for a long moment, making mental guesses. Finally she comes up with the correct answer. "You edit films. I remember that movie you redid. Sweet young Drew Barrymore and her friend *E.T.*"

"And you want me to edit your grandfather's movie. But you know that I'd have to reshape it in a way that he might never approve of, right?"

Ms. Rawley picks up a nail and turns it over between her wrinkled fingers. "I know that if you did it for your agency, you'd surely have to make Gerrith the star of the story. But I don't intend to sell it to the government."

"You don't?" I can just imagine what Sibilia's going to say about that. "Then why am I here?"

"Because your work is lovely, Minervadiane," Ms. Rawlings says. "You show a great understanding of character and scene, and how to bring a story together. My grandfather would have loved your work. If you follow your heart, you can make *The Ginger Star* the film he hoped it would be."

I'm flummoxed. "But I can't afford to buy it from you."

"I trust you to do it right," she says. "And if you do, I'll give it to you free and clear. To you, not the government."

She slides a nail into a pre-drilled hole and begins hammering again. "Of course, if that boy Ringo does it better, I'll give it to him instead."

The heroine faces a crisis of conscience and ethics: it's part of every good story.

\* \* \*

During the middle of the day, when all reasonable people are sleeping and avoiding the sun, I knock on Sameuldarrin's door.

"I'm asleep," he calls out.

"You just came upstairs," I reply, trying to keep my voice quiet. Ms. Rawley's room is only a few doors away. "Open up."

After a moment, he cracks the door open. He's got dark circles under his eyes and is rubbing one shoulder, all stiff from hunching over the KEM for so long. Behind him is a bedroom as overstuffed with furniture as mine: there's a wooden four-poster bed, two cherry bureaus, an oak secretary desk with a matching chair, a grandfather clock that doesn't tick, and a freestanding wardrobe overflowing with clothes.

"What do you want?" Samueldarrin asks.

Sometimes it's best to rip the bandage off the wound without preamble. "I apologize for implying you got me drunk."

"It wasn't an implication. Implications are subtle and veiled. You flat out accused me—"

"I apologize for accusing you," I say, quickly, before he starts a long lecture. "I was wrong."

He leans against the doorframe. In the low light from an Oriental lamp, with his bangs unruly on his forehead and dimples in both cheeks, he looks just like he did back when he won the Golden Doorknob Award. Every Film 101 student at Ithaca College was and still is required to write, shoot, and edit a three-minute film about how a doorknob kills a person. It's a test of imagination and wit. His project was the best I'd ever seen, or have ever seen since.

"I accept your apology," he says.

And maybe it's been a while since my last relationship, or maybe I still admire his work, or maybe he's just so ridiculously handsome that any woman my age would invite him to sex, but suddenly I'm imagining us in that four-poster bed. If we're quiet we won't wake Ms. Rawley or the squirrels. I can forgive, or at least temporarily forget, that he's the face and voice of the patriarchy, and that he mocks my life's work, and that if he had his way, every movie would end with a male hero carrying a woman up a staircase despite her protests.

He tilts his head and says, "You know, that's the first time you've ever apologized to me for anything, Minnie. A guy could get used to that."

We do not end up in bed together.

In classic films, action progresses either through scenes or montages. A scene puts the action in front of the viewer in more or less "real time." A montage condenses several action points into a sequence edited for maximum impact, usually to music. If I were to use a montage to represent the work that Samueldarrin and I did over the next few days, I'd put it to a classic song of the revolution by the iconic Annie Oakley: "Anything You Can Do, I Can Do Better." The montage might look like this:

Shot of Samueldarrin confidently splicing film.

Shot of Minervadiane studying the storyboards thoughtfully.

Shot of Samueldarrin congratulating himself on another excellent splice.

Shot of Minervadiane studying Vancott's cut again, frowning.

Shot of Samueldarrin giving himself a fist pump for another great splice. Such a dork.

Shot of Minervadiane in bed, pulling her pillow over her head.

When I call the office, Ann tells me that Ms. Rawley has no living relatives. The actors in the film died childless, and Kershner's descendants have gone missing in the floods.

"How's *The Ginger Star* coming?" she asks. "Everyone here is really excited to see it."

"It's fine," I lie. "What have you been doing to *The Matrix*?"

"Nothing you won't like," she says, but in the background the Oracle is telling Trinity there's a difference between knowing a path and walking it.

I hang up and blame all my current woes on Cleavon Little.

Alone in my room, I'd downloaded and watched *Blazing Saddles*. No wonder it's on the Red List! Rape jokes. More rape jokes. The completely unrealistic portrayal of a frontier entertainer's life in the Old West. Poor Madeline Kahn, forced to strut around in corsets and follow the dictates of Harvey Korman. But there's Cleavon Little, bringing wit and panache to his role as the first black sheriff of Rock Ridge, just as he exudes power and strength as Eric John Stark.

If I rebuild *The Ginger Star* with Gerrith as the lead, Cleavon Little will never be recognized as the first black man to star as the lead of a science fiction film. History will instead continue to give that honor to Will Smith, even though *Independence Day* is now the story of a stripper and a First Lady teaming up to defeat alien invaders.

Surely I'm tough enough to rob a dead man of his legacy, but even with the Steenbeck threaded and the celluloid waiting for its razor cuts, I can't do it.

"You going to edit that film or just keep staring at it?" Samueldarrin asks at midnight, as one of his spools runs out.

"I'm editing it in my head."

"Excellent plan. Tell me when you invent a telepathic projector." He leans back confidently. "Want to see my cut?"

"No."

"I'd love your feedback."

"Why would I give you feedback?"

"Because we're both in it for the love of movies," he says. "So what if you mangle great classics to appease your feminist dictators and I write appallingly bad parodies just for the attention? We've both got the Hollywood bug."

"Hollywood has been underwater for decades," I remind him.

"Come on, Min," he wheedles. "Watch my movie and tell me how wrong I am."

He loads up the projector and we sit in those velvet seats and damn if he hasn't done something brilliant. The sound is still splotchy and the dialogue will need to be looped, but Stark's search for his mentor is now a mythic quest. Yes, it's the story of a man exhibiting all of the stubborn, violent, pigheaded tendencies of men, but beneath the stoicism lurks sorrow and loss. Gerrith is no longer the token woman, but instead a fully-fledged character. Jenny Harris fills the screen with a calm wisdom. She is truly a goddess: smart, sensual, powerful. The Northhounds are as crude as I feared, but Samueldarrin establishes fear and it takes both Gerrith and Stark to defeat them. Partners.

The film runs out. I don't know what to say.

"Do you like it?" Samueldarrin asks softly. "I made it for you."

I turn to him. There's nothing fake about his expression in the glow from the screen. Nothing that reminds me how maddening and ridiculous he can be, or how he's the same man who turned *Buffy the Vampire Slayer* into *Xander Harris*, *Superhero*.

Cue the romantic music.

"I guess it's good," I admit. "Maybe your best work ever, Ringo."

Close up on the impending kiss. Our hero and heroine grow closer, gazes locked, mouths parting slightly, as all the wasted years evaporate and love blooms again.

"Call me Samueldarrin," he says as our lips meet.

December 2012

Then, a sound effect: a shrieking fire alarm.  
The house is on fire.

“It was the toaster,” a purple-headed firefighter says to a police officer. “Someone put it under the broiler.”

The fire’s out, though thin gray smoke continues to waft toward the nighttime sky. Ms. Rawley is sitting on a bench, entirely unharmed but enjoying the attention of a handsome young paramedic. I’m waiting, stomach and fist clenched, on news of Samueldarrin. After the alarm went off, he and I rushed upstairs to help Ms. Rawley evacuate. All three of us made it outside safely. But then she said, “My babies, my babies!” and he dashed back inside to save the flying squirrels.

“Excuse me,” I say to the firefighter with purple hair. “What about Mr. Cross?”

“Ringo Cross?” she asks. “The filmmaker? I love his work.”

“He went back inside for her pet squirrels.”

Another firefighter says, “The squirrels are on the back lawn.”

I go investigate for myself. Mike and Ike look grumpy in their cage but have no singes or burns. Goosebumps rising, I step past the lingering emergency personnel into the house. In the days when firefighters used water, there’d have been flooding everywhere. The film stock would have been destroyed, along with everything else we’d taken out of the vault. As it is, the suppression foam has already dried out and Vancott’s memorabilia is unharmed.

But *The Ginger Star* is missing. Every single reel.

My phone beeps with a message. It says, “Dear Min, she gave the film to me. Come to the premiere! You’ll be my red carpet guest.”

When I burst back outside, ready to kill him, the purple-haired firefighter says, “You just missed your friend,” and Ms. Rawley’s car is gone.

“Don’t take it too hard,” Ms. Rawley says, patting the bench beside her. “He’s an exceptionally gifted editor.”

“You saw the movie?” I demand.

“He finished it this morning, but he was nervous about asking you to watch it.”

I slump on the bench. “He’s a big giant jerk.”

“Maybe,” she says. “But I don’t think your story’s over just yet.”

Here’s another fact about classic filmmaking: studios back then were appallingly reliant on sequels. So far I’ve had to fix *Women in Black I, II, III, and IV*. I’ll be busy for years rebuilding all the *Superwoman*, *Spider-Woman*, and *X-Women* movies. Let’s not even get started on the years of my life the *Transformers* franchise will suck away. But the point is, people in those days loved to see familiar characters and situations over and over. They filled theater seats and then bought home copies and then went to see the next sequel, even if it was terrible.

But that was then and this is now. Today it takes a lot more to hook an audience.

“I don’t think Samueldarrin and I have a sequel in our future,” I tell Ms. Rawley.

“Let me tell you about the other movie footage my grandfather saved,” she replies, and I’m hooked. ○

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# NEXT ISSUE

## JANUARY ISSUE

Our January 2013 issue bubbles over with exquisite work from talented authors. Patriots, smugglers, soldiers, spies—you'll find them all, along with murder and intrigue, at **Suzanne Palmer's** grand old Mars "Hotel." While the excitement never lets up in this thrilling novella, you'll find that the tension doesn't ease in **Alaya Dawn Johnson's** first story for *Asimov's*, "They Shall Salt the Earth with Seeds of Glass," either. Here, two desperate women embark on a harrowing voyage through a USA under alien control.

## ALSO IN JANUARY

Just when you think it's safe to draw breath, **Will McIntosh** jumps into the fray with a terrifying story about a scientific investigation gone horribly wrong. You'll never think about the double-slit experiment in quite the same way once you get a frightening look at "Over There"; **James Van Pelt** does provide us with a moment of quiet introspection in "The Family Rocket," his heartfelt homage to Ray Bradbury; but then the always sardonic **Kit Reed** reveals what actually happened to a group of feral Girl Scouts in "The Legend of Troop 13"; and **Nancy Kress** painfully shows us what it's like for those who drink from the poison cup, despite the poet's observation that "Mithridates, He Died Old."

## OUR EXCITING FEATURES

**Robert Silverberg's** Reflections points out that unlike certain writing communities, the SF field bears no similarity to "The Raft of Medusa"; **Paul DiFilippo's** On Books column tempts us to separate vast sums of money from our wallets; plus we'll have our annual informative Index, as well as that once-a-year-chance-to-make-sure-your-voice-is-heard **Readers' Award Ballot**; and an array of poetry along with other features you're sure to enjoy. Look for our January issue on sale at newsstands on November 16, 2012. Or subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at [www.asimovs.com](http://www.asimovs.com). We're also available individually or by subscription on *Amazon.com's* Kindle and Kindle Fire, *BarnesandNoble.com's* Nook, *ebookstore.sony.com's* eReader, *Zinio.com*, and from [magzter.com/magazines/](http://magzter.com/magazines/)

## COMING SOON

new stories by **Matthew Hughes, Robert Reed, M. Bernardo, John Chu, Naomi Kritzer, Joel Richards, David Erik Nelson, Vylar Kaftan, Kristine Kathryn Rusch**, and many others!

**Robert Reed recently sold three novels to Prime Books, and they will emerge next year. The Diamond Trilogy takes place in the universe of *Marrow/The Great Ship*, in some peculiar new realm. He tells us he's having great fun writing them. In his latest story for us, a biologist who names a new species of apes must beware . . .**

# THE PIPES OF PAN

**Robert Reed**

**B** Biologists can become respectably wealthy, and a prestigious award or seminal paper will put them in the high ranks of their industry. But it is the rare taxonomist who gains worldwide celebrity status, and there aren't many biologists who have to endure an assassination attempt.

Three times strangers tried to kill Lawrence Goldman, presumably because of his superior understanding of primate evolution.

Graduate students are modern slaves. As a slave, Lawrence taught introductory biology to three hundred indifferent bodies. But there was a girl down front who seemed intrigued by whatever the teacher had to say, and one day's lecture concerned the basics of DNA and evolution. Lawrence was twenty-six and full of average motivations. She was nineteen and pretty enough. A healthy male chimpanzee armed with a large brain and the compulsive need for conquest was holding court over lesser beings, and there sat a small fertile female showing her teeth and an agreeable body. Wasn't it reasonable to pick the tasty lice from the dreary fur and dander of modern life? Contemplating evolution and the relatedness of life, Lawrence decided to offer up insights sure to stir a few pots. Glancing at the girl, he smiled. Then looking at a random face in the third row, he made a flat unassailable statement.

"Human beings are apes."

There was no reaction. No sparks of offense or added interest, even from the girl. But he was only setting the stage for more combustible statements:

"And we don't deserve our own genus, by the way. *Homo* is a fiction. Long-dead scientists gave us that label for many reasons, none scientific. If alien explorers built a taxonomic tree for this world, they would shove us where we belong, sandwiched among the bonobos and chimpanzees in the genus *Pan*."

This should have been radical stuff, but the audience barely stirred. The girl continued to smile, but without the fascination that Lawrence had hoped to see.

A modified simian hand shot into the air.

Lawrence pointed. "Yes?"

The student was male and presentable, sitting in front with a new netbook and

worn book bag and the upright stance of a person who believed good posture mattered. Nothing about him seemed worrisome. "Apes are nothing like us," he said. "Have you ever been close to a chimpanzee? They're animals. They are dangerous, brutal, unpredictable animals. If you make one of them angry, he could well bite your face off, which is something even an insane human would never do."

Lawrence nodded, giving himself time to consider. His honest opinion was to throw chimps into the human genus and be done with it. But people felt a weird emotional bond to the name *Homo*, and it wasn't just this goofball who believed in the name. Dozens of sleepy boys and girls were being roused by what they were hearing—siding with the doubter, waiting for whatever the teacher gave in return.

"I'm not going to discuss religion," Lawrence said.

Every mind was suddenly focused on gods and churches.

"And I don't want to throw too many details at you, because this business is complicated and very technical."

Now his audience felt patronized. Perfect.

"This is a bigger issue than nomenclature and scientific principles," he said. "What I believe, intellectually and emotionally, is that humans are dooming our species and our world, and all because we put ourselves into this high place where we obviously don't belong."

The young man's hand lifted again.

Lawrence conspicuously ignored him.

"What place is that?" the student called out.

The teacher looked past him. "Human. We aren't human."

Some students were puzzled, others indifferent. But the girl started to laugh—a light girlish giggle—and leaning forward, her shirt opened up, offering her teacher a glimpse of her fine full breasts.

In that respect, it was the girl's fault. Lawrence launched into a three minute lecture about the beastliness of their species and the horrors wrought by an ape with too many tools and not enough sense. Then she leaned even farther and laughed louder, and that's when Lawrence offered his next inspiration. With a booming voice, he declared, "We also need to dump the *sapiens* label. *Sapiens* means knowing or wise, and we aren't either. Read your Bible however you want. Believe whatever foolish story you want to believe. But the last ten thousand years prove that we are a tribal animal riding on a chimpanzee's chassis."

The girl laughed again. And better than that, she lifted the lovely twenty-seven bones of her little hand. Lawrence was happy to call on her by name. Happy for the attention, she smiled at the rest of the class before saying, "So Dr. Goldman, what would be a better name for us?"

Adrenaline and testosterone coupled inside the happy brain. Lawrence was thinking about youth—young girls and young apes—and from the haphazard Latin learned for work, he dragged out one familiar word that translated into "youth."

"Foetus," he said. "That should be our new name."

Then with a booming voice, "*Pan foetus*."

Later that day, speaking calmly to the detectives, the male student admitted that he didn't like anything his teacher was saying. But the worst part was the laugh that followed those final two words—a wild cackle that made something snap. That's when the skeptical boy climbed to his feet. Most of the students assumed it was time to leave, and they stood up too. Two minutes early, the class was finished and lunch was beckoning, and the girl stood and gathered her belongings against her wonderful chest before approaching the podium. This seemed like a promising turn of events for Lawrence. He ignored the other students and their prosaic questions. He was ready for whatever the girl said. She was standing on his left when the student

attacked from his right. The girl was planning to ask some little question. Of course she had no feelings for the grad student. Lawrence was too old and too poor and certainly not worth her time. But she was a shameless flirt, loving the attention from any boyish sack of meat, and for the next three years in college she got a lot of mileage out of explaining how she was standing there when that poor professor got stabbed three times by a religious crazy wielding a little knife.

“Fetus, fetus, fetus,” the assassin chanted with quiet fury.

Lawrence spent one night in the hospital and returned to work before the week’s end. For the rest of the semester he was careful about what he said, and he avoided flirting with students. But the bold chimp remains bold, and given the opportunity, his true nature will reemerge.

Common knowledge says the tragedy in Toronto was the big tipping point. The death toll was small—seven adults and three children. But the fight was captured on security cameras as well as self-recorders worn by the perpetrators and their victims. Baseball bats and tire irons were the weapons of choice, the ugliness magnified by the blatant racial component: Black-skinned refugees surrounded and executed by a gang of pale-skinned, epithet-spouting murderers. Toronto was a cosmopolitan metropolis spared the economic downturns and brutal weather events of southern cities. The logic said that if peaceful Canadians could become this horrible, then everybody was an animal and the scientific noise about humans being chimps must be true.

But common knowledge springs from apish emotions. There were hundreds of tipping points, each occurring inside thousands of separate heads. Two centuries of Darwinian thought played a role here. There was Goodall and Kanzi and two Web networks programming nothing but features about the great apes and their human qualities. For many people, it was the pernicious failure of human intellect: The world was engulfed by heat waves and rising seas, and their species still refused to work together. People had to be animals. They lived in tribes and killed in tribes, except when they were killing their own kind to gain little heaps of power, and the worst part of Toronto was watching that tattooed white man grab the bloody boy by the leg, forgetting even his own camera as he flung the doomed skull down onto the curb, killing the boy with the second impact, and then flinging the limp body five more times, just to celebrate his rage a little longer.

And there was another tipping point: Lawrence Goldman.

What began as an inspired lecture and knife attack had grown into an intense if sporadic cause. Lawrence had a Web page dedicated to *Pan foetus*. He had authored hundreds of blogs and several tightly reasoned papers as well as one slender book of popular science. The book did well in the world outside biology. Lawrence’s colleagues were skeptical, but no biologist was comfortable with the status quo. Then came Toronto and the sudden need for experts in the field of human beastliness, and Lawrence got desperate calls from news producers and online personalities who needed a face and voice and various words that sounded smart without making people feel stupid.

In his late thirties, Dr. Goldman proved handsome and deep-voiced, with a sharp sense of dress and personal grooming—unlike the average biologist, it might be said. He hadn’t climbed far in his career, which was another positive. This was introductory biology all over again, except the audience was older and less distracted. He spent days sitting in front of cameras and reporters. He talked about cladistics and ape DNA and other trails of evidence leading through what he dubbed the “ignorance jungles.” He was lucid and patient, and occasionally he could be charming too.

Lawrence didn’t suggest that renaming mankind might save the world. A famous

blogger with ten million loyal readers came up with that gem. "We belong in the world of animals," the blogger wrote. "If we give ourselves to the apes, then we'll stop taking ourselves so seriously. And wouldn't that help us feel the union between the greater world and our humble selves?"

When he was first asked if a twist of nomenclature would save the species, Lawrence was politely dismissive. But his girlfriend repeated the possibility that night. She hadn't watched the interview. She'd read the idea somewhere else first, though she wasn't sure where. But she did offer up an interesting flourish. "You know what the Greens are saying, don't you?"

They were in bed. Lawrence had taken her from the front, bonobo-style. Media appearances always keyed him up, and despite the finished sex and the late hour, he was a thousand miles from sleep.

"What Greens?" he asked.

"Environmentalists," she said. "You know what they're claiming? The world would be better if humans went extinct."

"Some do claim that, I suppose."

"Well," she said. "If we change our name, *Homo sapiens* are extinct. And maybe that's how we save the world."

He laughed because it was funny. But later, when the chimp-girl was asleep under the covers, Lawrence looked at the issue again. It was like a perfect banana dangling from the high ceiling, and at his feet were a ready set of boxes waiting to be stacked into a most useful pile.

The next day brought five interviews, and he told his audiences, "We need to be extinct. Then we can start over again, but this time as a new species."

Millions embraced that sentiment, including a few young chimps with advanced degrees in biology. They were the warriors who spearheaded the Extinction Movement. They pushed the right buttons and a few wrong ones, making the proper apologies to earn a consensus. Debates were brief and mostly invisible to the larger world. Another week or a careless public statement might have killed the Movement. But votes were taken and measures passed, and while Lawrence was never intimate with the politics and intrigues, he was given the honor of sitting at one end of the stage while chimps with greater reputations than his announced their watershed news.

The *Homo* genus was an old, regrettable mistake left over from nineteenth century ideals. The new species was *Pan sapiens*, which included several subspecies. Extinct were *neanderthalensis* and *denisovsis*, while *Pan sapiens foetus* had endured to the present day.

The twenty-minute presentation ended with a generous call for questions.

Hands pointed at the handsome chimp sitting near the curtains. Ape mouths called out, "Lawrence, Dr. Goldman, hey!" Lawrence rose and stepped to the podium, smiling at the cameras and the world, and with a polished, clean, perfect voice, he congratulated his colleagues on their vision and exceptional courage, and naturally he was proud about his small role in helping transform the world. "For the better, I hope."

Even the most inattentive chimp could read the bodies of the other scientists. They were offended and jealous, watching a low-ranking male steal their fame. They sat quietly, polite while the public watched, but each in his fashion was imagining the kinds of high-minded shit that he would fling into that smug, undeserving face, if only he got the chance.

Not every chimp believed that he was a chimp. Two words were changed in the textbooks. Illustrations showed new lines running between species. Most of the

world successfully ignored the earthquake. But there were tribes and apes without tribes that saw the obvious insult: Common sense had been abandoned. God was being denied. A population that didn't know Linnaeus felt expert enough to deny the science, and as a consequence, the words "*Homo sapiens*" were being used everywhere, often with a rebellious edge.

As it happened, the world entered a period of calm. The discovery of *P. sapiens fetus* seemed to usher in an agony-free decade, and one taxonomist wasn't too shy to gather up whatever credit was offered to him, building a tidy celebrity that kept him and a series of lady friends fed and sheltered.

"Chimps can learn anything, given enough time," Lawrence said. "Our tribes are getting better at handling disasters. International cooperation has never been more rational. There is an element of luck to this peace, yes, but we shouldn't ignore our own accomplishments, and there's absolutely no reason to feel scared about our future anymore."

But the peace ended with an endless northern summer and food shortages and little wars. Two groups of adolescent soldiers wound up standing along a line of internationally recognized piss marks. Hoots and exposed asses led to a firefight. Reinforcements led to an ad hoc invasion. Three days later, cities were burning and two hundred million were dead, and an angry Lawrence told the world, "It's time for the babies to grow up."

Lawrence Goldman was responsible for the war. That's what the second would-be assassin decided. She couldn't say how or why he had done this, and frankly, she didn't care about reasons. The world would be improved by his absence. Killing that one man meant justice, and despite various mental limitations, she managed some very careful plans. A fiber pistol printed out yesterday slid past twin security gates. A small crowd of admirers were waiting to see the beast, but then they parted before her, obviously ushered out of the way by angels. The shot was easy. Lawrence was leaving the studio where he often taped interviews. He was an important creature, smug and proud and obviously wealthy. She was within fifteen feet of him. Two men were paid to keep the man safe, but they were distracted by a different crazy face. Feeling the force of the inevitable, the woman pulled out the pistol and aimed at his ear. For some reason, that ear made her exceptionally angry. She looked down the little barrel until she didn't see the gun or feel it, and she imagined the bullet penetrating the ear canal and skull, the brain exploding with a huge satisfying pop. Then somebody yelled, "Gun!" She was so entranced by the target that she forgot to pull the trigger. Then she was on her stomach and a stranger's foot was breaking two of her fingers, and that's when she used a coded word that set off a small bomb hidden against her human chest, killing herself with the blast and three other people when her bones were driven through their bodies.

Ash rising over fifty burnt-out cities brought the long nuclear autumn. Endless frost and radioactive rain meant famine and more wars. A billion chimps were dead and dying, nations fell every day, and that's when Lawrence returned to public view. He had a mission. He began shoehorning his way into public-policy conferences and various think tanks. There were thousands of better qualified advocates for peace, but he had a good face and voice and he wasn't ashamed to use the attempts on his life as emblems, proof of his credibility and the deep lessons learned. "The world is a cage filled with chimps," he said a thousand times. "And none of the chimps will sleep safe until we embrace our beastly nature."

Lawrence created a foundation, raising billions to support causes of pacifism and social understanding. A book about the great peacemakers in history sold well, enriching the bank accounts of two ghostwriters. The Goldman Foundation sponsored a



high-profile conference where major treaties were signed. Then Lawrence helped reboot the *2001* movie franchise—a wildly successful epic beginning deep in chimp history, culminating with aliens and a desperate mission to Mars in the year 2101.

No scientist was more recognizable, and every year brought loose talk about the Nobel Peace Prize.

When Lawrence turned sixty, a platoon of reliable, enabling souls had gathered around him. Some were hired for security. Some were hired for no particular reason. All were young and smart and appreciative. He slept with a few, but all of them served as a portable audience and support staff. It was impossible to say a stupid word in their presence. No request was too large or too small. They practically fought over the honor of doing favors for the gray-haired ape, and it was easy to build a clannish sense of belonging with these earnest, optimistic youngsters forever standing in his shadow.

He included as many as possible when he traveled, even if he had to pay the bills himself.

He was a gracious good boss.

The New Baltimore trip was supposed to be quick. An unusually strong hurricane was churning in the Atlantic, but its track had been forecast with perfect confidence. Lawrence and his crew were installed at the Marriott when the first alarms sounded. Struggling with a three year drought, the French government had stationed five research vessels inside the storm. The plan was to create a stronger system that would survive its journey across the northern seas, slamming into Western Europe as a dangerous but much needed rain.

Nobody understood the experimental techniques, including the French.

Within hours, the Great Hurricane of '56 was larger than any storm ever witnessed by apes. It created its own river of air, and by morning it decided to bear west, flinging its four hundred mile an hour winds into the Eastern Seaboard.

Every city lost power. Buildings shattered, bridges and tunnels were devastated, and flood waters isolated the survivors in whatever passed for shelter in the ruined waterscape. The Marriott proved a worthy fortress, but three days without fresh water and little news proved that rescue wasn't coming. One girl asked Lawrence what he wanted to do. The old man was hungry for one good meal and two hot showers, but instead of that, he shrugged and said, "Maybe get inland a little ways. Free of this wet crap, you know?"

The youngsters met without him. Options were mentioned and discarded, particularly the good sensible course of doing nothing. But the bold voices won the argument, and his favorite girl told him the plan and the general route. Lawrence thought this sounded hazardous, but he relented. These were his people, his clan, and if he didn't trust their experience, he could at least count on their courage and young backs. Wasn't this why the young were strong? So they could survive what would kill the rest of us?

He walked where he was told to walk.

For ten blocks, there was nothing but progress.

Unfortunately nobody in the group knew the city as well as they imagined. Every map was out of date. Every key street was flooded. A new course had to be invented, and several cowardly voices had to be ignored. Nobody was going back to the hotel! Then the rain found them in the open. A new storm had built on the body of the old storm, complete with mild eighty-mile-an-hour winds and long bursts of fist-sized hail.

Shelter was found inside a flooded school.

Night fell, which terrified everyone, and then the rain became a light mist, blocking long views but not bad enough to keep a sane man indoors. Lawrence claimed

that he wanted to remain inside the school. He was exceptionally tired and ready to sit on a hard classroom floor, waiting for morning. But he kept shivering despite all of the young bodies pressed against him, and they were scared for him, and that's why he was coaxed to his feet and halfway carried back to the street.

There was no destination, no concrete goal. This was walking for the sake of motion. Cameras and phones were drained, useless. The neighborhood changed from prideful poverty into acidic emptiness. Houses and apartments were empty before the storms tore them apart. But faces pushed out of the gloom, watching the odd parade going nowhere worthwhile. Lawrence's people looked like they had money. From an alleyway, one deep voice asked if they had any food. The idea was to sell these hungry strangers a few bites, making a tidy profit in exchange. But a tense young fellow heard a different meaning, and he offered a few words that did nothing to help the flammable situation.

Then three giant men appeared on the street before them.

With a quiet, reasonable tone, one man asked, "Who are you?"

The man beside him was irritated by this pack of lost children. "Are you idiots?" he shouted.

The third man preferred silence and a searchlight bright enough to blind unprotected eyes.

Every adjacent building had fallen down. There were no working security cameras or hope of rescue. Lawrence's people were in the middle of the street. The man who happened to be in the lead picked up a broken brick, just in case, and at the same moment Lawrence muttered a few cryptic words.

What happened next is known, at least in the broad outline. Why it happened is the greater controversy. Some claim that Lawrence asked the three men some small question. But maybe he was directing a mild comment or complaint at them. Or he was giving commands to the good loyal friends who were gathered around him. Later, talking to the detectives, he couldn't recall what he wanted to say, much less what words came out of his shivery, exhausted mouth. But the man with the searchlight fixed the beam on Lawrence, allowing everybody to see one of the world's most famous faces. Lawrence covered his eyes and moaned loudly, shouting something about hurting. The young man in front—the one with a quick tongue and ready brick—thought that he was being ordered to defend his boss, and that's why he threw the brick as hard as possible.

Later he claimed that he didn't mean to hit anyone. When pressed, he said that if he was aiming for a face—and he meant "if"—then it was the asshole with the light that deserved it. He certainly didn't want to brain that little grandmother who was wobbling up from behind, ready to spill some caution into the fragile situation.

The war lasted most of an hour. Blame was difficult to fix to the survivors. The common opinion worldwide is that the local chimpanzees shouted wild insults at Lawrence before charging from all sides, and if not for the brave stand by his followers, the third assassination attempt would have succeeded. But people in New Baltimore claimed that they didn't recognize the old man in their midst. Spoiled, stupid children hurt innocent people for no reason, and of course there was a fight. People didn't come into people's homes and bash in an old lady's skull and then not expect payback.

Maybe the most interesting account is Lawrence's. Attorneys have shielded him and his foundation from legal harm and criminal prosecutions, and presumably that's why he doesn't say anything about what he might have done personally or to whom. But on several occasions, in the company of different witnesses, he has told how he was pushed back behind his young warriors. Bricks were raining down. Planks of wood were used as clubs. The shouts were raw and washed with crude,

eternal words, and it wasn't at all clear who was going to win this battle. And there he was, slumped back against the abandoned apartment building, and in the rubble was a stack of century-old pipes—steel clad with zinc, rusted inside and waiting to be scrapped.

One of Lawrence's boys dropped back and grabbed the top pipe, and hollering madly, he sprinted out of sight.

A second man stood beside Lawrence, told him to be careful, and grabbing a stout length of pipe, he flung it at some ominous piece of darkness.

Then a girl retreated, bumping up against Lawrence. She didn't know who he was. It was dark as ink, and all she could tell was that he was male and not fighting. And that pissed her off. Without looking back, she said, "Pick up a weapon and start swinging it, goddamn it," and she grabbed a nail-rich board for herself before pushing back up to the front lines.

For a few moments, Lawrence stood alone.

The searchlight passed overhead, giving him a view of one pipe slightly shorter than his arm. Some kind of bracket was fixed to one end—a perfect implement to drive into a naked head.

Lawrence grabbed the other end.

Then he let go.

And then something obvious struck home: He had a choice. He could pick up the pipe or leave it where it was. "I could be one species or another," he told his closest, best friends. "It was my choice. It is every chimp's and every person's choice. And that's what we do every day, breath after breath, deciding whether we are going to pick up that damned pipe." ○

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## YOUR CLONE RETURNS HOME

Back from far star systems  
everything about home is similar

the Altairan rug shimmers in the hall  
a tall tank of familiar blue ticklefish

& too her siblings' smiles  
though they're rounded & more wry

you greet her with a kiss  
tug at her hands with wrinkled care

the champagne pares at her senses  
the dinner talk feels so strained

as she cries to sleep upstairs  
she wonders will she break new ground

or will her time here remain  
more common than simply common

or remain her own

—Robert Frazier

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# SUDDEN, BROKEN, AND UNEXPECTED

Steven Popkes

**Steven Popkes has been attempting to play music since he was four. He considers himself a determined, gifted amateur, except for the gifted part. He's a software engineer and continues to experiment on how to grow bananas in New England.**

**A** window opened up on the active wall and I stared at it. Rosie stared back.

"Hello, Jacob." She smiled. The always unexpected dimples on each cheek and that bright, bright smile. A nose so thin it whistled when she was excited. Not beautiful. Not pretty. Compelling. Like a volcano or a ruined city or the Texas plains or a magnificent catastrophe. Beauty just isn't a consideration. You're witness to something amazing.

"It's good to see you." As if she'd just returned from shopping instead of reappearing in my life after twelve years of silence.

A jumble of memories and impressions struck me like a brick. Meeting her backstage in Brockton. The feel of her skin, the warmth of her breath, the smell of her. Singing back in Massachusetts. My band, Persons Unknown—me, Jess, Olive, and Obi. Stoned and laughing at the DeCordova. Release of "Don't Make Me Cry." Money. Fights. Letterman. Buying this house. The long tour scheduled from Boston to Los Angeles. That wonderful last night on the way to Ohio. The fight in Cleveland. Our breakup in St. Louis. The breakup of the band in Denver.

She wiggled a finger at me. "You and I need to talk."

"Off," I said and she winked out.

I sat there, breathing hard, my hands shaking. I started to pick up the coffee cup, realized I was going to make a mess and put it down again. The call alert sounded.

"Fuck you," I snarled. I knew I'd answer it if I stayed. I grabbed a pair of shoes and hurried outside. I pulled them on and ran out the back on the trail. My earbud buzzed and I tossed it in the dirt.

Twenty acres of scrub just means when you get to the edge of your property you can still see your house, if the land is flat and in the desert. I was surrounded by public land on three sides. So far, only the ever approaching green cloud of Greater Los Angeles had been able to reach me. So far.

I sat down on an old volcanic boulder heaved here back when dinosaurs were still sitting around playing cards and waiting for the meteor to hit. I looked around the shady crevices for rattlesnakes. It was spring but an early emergent wasn't unheard

of. It was already hot but not uncomfortable. Unlike Boston, out here in California sweat works.

Eventually, I calmed down. After all, I thought. It's been twelve years—almost thirteen. She must have a good reason to call me now. *To mess with you again*, I said to myself. Not necessarily. And it *had* been a long time. We were different people. I was a recluse living in a rotting house that the bank and state would someday fight over. She was probably a successful . . . well, something. Rich, probably. Doing something important. World famous—wouldn't I have heard of her? *Have you ever looked her up?* No. I hadn't. Not that I didn't want to, but it felt too much like an addict returning to the drug. I was happy now.

Really?

I forcefully told myself to shut up.

Okay. We were adults, right? We could converse like adults.

I made my way back to the house. Found the bud lying next to the front door. I inspected it for wildlife. It was clean. I put it in.

I went back to my coffee. Cold as it was, this time I drank it down without spilling it. "Okay." Grover, my house AI, figured out what I meant.

Rosie popped up again on the wall. "As I said: we need to talk."

"Why?" I didn't know if I was asking why she called now or why she had left.

"Got a song doctor gig for you to think about. A good one with lots of promise."

I didn't know what to say. "This is a . . . professional call?"

"I suppose it could also turn into studio work. You're still doing studio work, aren't you, Jake?"

"Sometimes. Are you representing musicians these days?" I felt suddenly very tired.

"I'm doing a favor for a friend." She cocked her head to one side. "Besides, this is what you do, isn't it? Pull musical order out of creative chaos? The price is very attractive."

"I can't—" I shook my head. I remembered how so often I felt at sea with Rosie. Always trying to catch up.

"Look," she said, suddenly sympathetic. "I know you've had a rough time. Behind on the mortgage, right?"

"And the taxes."

"Christ! The State of California is not someone you want to owe money to." She took a deep breath. "My point is you need the money. A single song, Jake. That's all. It'll pay back the state and even bring the mortgage up to date."

I loved this house: two stories, a couple of bedrooms on plenty of land far enough from Greater Los Angeles that the price had been screamingly ridiculous instead of obscene. It has its own power, water and sewer—I was paranoid about the end of the world when I bought it. Twelve years ago the world seemed a lot more precarious. Back before I blew any remaining money on riotous living. But it fit me. Kitchen. Bath. A couple of guest rooms, an office, and my bedroom. Nice studio in what would be the living room: high cathedral ceiling, good acoustics, and an active surface along the whole eastside wall. Enclosed and far from the crowd. *My house. My house.* "I guess," I said slowly.

"Great. I'll shoot you over a contract. This is going to be fun."

"But—"

She had already disconnected. A moment later Grover flagged the packet and okayed the contract. I sighed and had him put it up on the wall.

A set of pages that ran the length of the wall at my eye height. I walked alongside reading it. "Downbeat Heart." One song. Ten pages. Musical notes. Not techno tablature or vague demonstration melody. Actual musical notes. And not just vocal lines

and a sketchy guitar accompaniment. These were full score sheets. Every sheet had vocal, guitar, keyboard, bass, and drum lines—at one point in the bridge tympani were called for. *Tympani*? Keyboard sections had synthesizer settings referring to frequency and sound envelope definitions. There was an appendix with suggested synthesizer models and a map of the envelope settings for each device.

It was a curious tune. A little three beat arpeggio in a four beat base. Odd. Take your right hand and tap out a 1-2-3 beat. Take your left hand and tap out a 1-2-3-4 beat at the same time. The right hand catches up to the left hand every twelve beats. It's not a new idea, but it's rare in pop music. It was clearly written for a divaloid—a long glissando up into parts of the audio spectrum only dogs could appreciate. Like someone had taught hummingbirds to sing. Drivel written by rich but untalented fans that would need far more than a complete rewrite to make it remotely listenable, much less performed by a software perfectionist. From the range and the run, I guessed the love interest of the composer was Dot. It was a sort of signature with her and she had the biggest fan base.

My interest faded right off the map.

Okay, I thought. Written on SynthaChord or ProMusica. Professional systems suggested deep pockets. A *very* rich divaloid fan. With delusions of grandeur.

But money was money. A contract was a contract. Rosie was Rosie.

I found myself playing the song back in my mind. First in one key. Then another. Faster. Slower. Change the key half way through. Fitting in different words. Adding a drum beat and a different guitar back up. Inverting the chorus. Play it backward. Inside out.

Okay. I was prejudiced. It was better than a Dot song.

Along around midnight I packaged up the whole thing and sent it off to Rosie with an invoice. Payment came in an hour later. Grover turned it around and sent it off to the banks and the State of California. The money was no more than a little loop of electrons into my account and out.

It had been more fun than I expected. I was even vaguely depressed it was over.

Tomorrow I had to nail the photovoltaic shingles back down. Or fix the composting toilet. Who in their right mind wanted to fix a composting toilet?

I took comfort in the knowledge I wasn't going to be evicted for another month and went to bed.

Around dawn I heard something downstairs.

I turned on the light and listened. I didn't hear anything. Thinking I had been dreaming I started to turn the light back off when I heard it again. A scraping. A muttering.

I left the bedroom and stood looking down the stairs, listening. Again.

No cops: there'd be an hour before they got out here. I rummaged in my closet until I found an ancient softball bat. Then, as quietly as I could, I eased downstairs.

I smelled coffee and cigarettes.

Rosie was sitting at the table next to the active wall, a keyboard in her lap. There were a few displays up showing things I didn't understand. Behind her on the other table was a set of four open computer cases plugged into the data ports.

She was wearing a light colored suit with charms and bangles and bracelets hanging everywhere: arms, wrist, shoulders. Rosie rang like bells as she typed. Even from here, she smelled of cigarette smoke, and the aroma brought out a whole collection of memories. From the time I'd met her I'd been attracted to women who smoked. She wore reading glasses that, God help me, I found unbearably attractive.

She stopped typing and watched a display, the smoke from her cigarette curling quietly upward.



"How did you get in here?" I put the bat down on the table and sat across from her. She tapped a key and all of the displays disappeared from the wall. Rosie pulled a tablet from the table with the cases and looked at it. "You gave me a key when you bought the place, remember? Just before the last great tour of Persons Unknown."

"Twelve *years* ago."

"And you never changed the locks." She looked at me across her coffee. "What does that tell you?"

"That it's time to change the locks." I felt cornered. Constrained. Boxed in. I waved at the cases. "What are you *doing* here?" I snarled.

She took off her reading glasses. "My client liked what you did with 'Downbeat Heart.' Did you?"

The answer was yes. The more I thought about it the more I liked both the song and what I had done with it. Working on that song was far more fun than it should have been. It felt like water in the desert. What did that say about me?

"Musical order out of creative chaos. What's not to like?" I felt defeated. "Even if it was music for Dot."

"You figured that out on your own."

"The glissando gave it away."

"I expect it did." She looked down, gathering her thoughts.

"Why did you send it to me?"

She looked away and back at the screen. "The client. Frankly, you weren't my first choice."

I exhaled. I didn't realize I'd been holding my breath. "I see. Who's the composer?"

Rosie nodded toward the wall. A small figure materialized, barely five feet tall, pale with short jet-black hair, big blue eyes, and tiny mouth instantly recognizable. Dot smiled at me. "Good morning, Mister Mulcahey."

Rosie was watching me. "Jake? Meet your client."

I stared at the two of them. Then I walked over to the main breaker box and pulled the master circuit. The entire room went dark. Dot and Rosie disappeared into darkness.

Rosie didn't say anything for a moment. "Mature, Jake. Real mature."

I heard her fumbling in the dark. A moment later light came from her hand. "Did I ever tell you the time I was consulting for Peabody Coal back east?" She passed the spot of light over me. "Always have a flashlight." She looked into cases. "Gig taught me to always use buffered power supplies, too." Rosie walked over to the breaker box and turned it back on again. After a moment, Dot reappeared on the wall.

Rosie found a chair and sat down. "What's this all about?"

"Have you ever *listened* to her?"

"More than you would think."

"If she weren't wholly owned and controlled by Hitachi—"

"Don't explain it to me." Rosie gestured toward Dot. "Explain it to her."

"What would be the point?"

"Indulge me."

I looked at Dot. She was watching me. She didn't look a day over sixteen.

"You're a whore," I said and stumbled. Not something I could say easily to an image my brain kept telling me was a young girl. "That is, if you weren't wholly owned and controlled by Hitachi. That makes you a tool. A mechanism to find the absolute bottom, the broadest possible appeal. A *vehicle* to separate people from their money. You're *merchandise*, easily purchased. Easily used. You're *easy listening*. Music is supposed to make you feel. It's supposed to cost you something—"

"I agree."

“What?” I stared at her for a moment. I looked at Rosie. “What’s going on?”

Rosie pointed at Dot. “Don’t let me stop you. Go on. Talk to her.”

I turned back to Dot. “You agree?”

“Can you explain to me what you did to ‘Downbeat Heart’?”

I looked at Rosie and back at Dot. When I looked at her objectively it wasn’t hard to see her as a thing: eyes so big they’d look at home on a fish. Hair black as if painted in ink with stars twinkling in it. Shoulders narrow but hips wide—as stylized as the Venus of Willendorf. But some part of me kept translating all that into *human*.

I tried to explain what I had done. What I always did. What I had done since I was twelve.

The lyrics were sentimental but that didn’t matter. The quality of lyrics is overrated. They depend solely on the supporting music. The *Iliad* would sound crappy with a disco beat but “Mary Had a Little Lamb” could be profound if fit to the right arrangement. So lyrics came second.

In this case, that triple beat arpeggio driven square into a four by four rhythm gave weight to the emotion and turned the words from trivial to powerful. The arpeggio couldn’t hold a melody on its own. The bass line kept it in the song until it was later echoed in the chorus. But it lingered over that pattern way past the point of least boredom: the full three measures. Twice. I let the pattern start then, once it was established, deviated from it by sliding across the triple with the melody line hidden in the bass. This gave the impression of a four by four but without actually leaving the triple beat and also introduced the barest hint of the melody carried by the bass line. The second repeat already had a quirky key shift for the chorus. I leaned on that and put in a strong bridge back to the main line, adding some harmony in an accompanying minor key. Finally, a long glissando across three octaves back to hold the new key into the final chorus—had to give the divaloid fan his money’s worth. The result was a musically interesting danceable pop tune.

I ran the glissando up and down on my guitar a few times to make sure it fit. Then I had Grover play the bass line while I played the vocal line to make sure they sounded like what I expected. Then I had him play the vocal line while I went through and straightened out the other instrument lines.

The new vocal line was a better fit for the lyrics. Not that the lyrics were actually bad—love unlooked for. Lots of hope. Past disappointments. The broken mending themselves. That sort of thing. I didn’t pay much attention to the content. Instead, I listened to how the words sounded together. Too forced. The imagery was too tame.

Grover served as rhyming dictionary while I punched up the imagery—hands to fingertips, shining to glittering, things like that. Making the consonants fall on the beat so the vowels could carry the melody and then making the rhymes a little more memorable. Straightforward stuff.

“Straightforward stuff,” Dot repeated and seemed to freeze for a moment.

Rosie watched her tablet closely. She typed the keyboard a moment and watched the tablet one more time.

“I understand,” said Dot, suddenly moving. “Will you work with me again?”

“With you?”

“Yes. I have a new perspective on my work. I’d like to make it better. More fulfilling. With more impact. I’d like you to help me.”

“You want *me* to help *you*. Wouldn’t that put me out of a job?”

She smiled at me. “Do you really think you’re so easily replaced?”

“How could I possibly help you?”

Rose cleared her throat. "The contract involves helping a composer bring material to completion, prepare the material for a concert and shepherd the performance. One concert. You will be very well paid. The work on the single song brought your debts up to date." She waved around the room. "With this gig you can pay *off* the mortgage and fix up the house. Maybe even have something left in the bank."

I looked at Rosie. I looked at Dot. I looked around my house.

My house.

"Okay," I said slowly. "What else have you got? Enough for a performance? Enough for a collection?"

Across the wall appeared folder icon after folder icon. There must have been thirty songs. Forty. More.

I whistled. "This isn't a collection. It's an opus." I looked at Rosie. "Rosie, what have you done?"

Rosie smiled. "You're about to find out."

I took time for breakfast and coffee. But Dot was just standing there, waiting for me. Rose pulled out a tablet and watched it, glancing up from time to time to watch me or Dot.

I couldn't take everybody just *waiting*.

"Okay, then." And we got to work.

I had Dot pick out the best ten songs to work on. Her choice. This was a test of her as much as anything else. I wanted to see what *she* thought were the best songs. We cracked them open one at a time.

None of them were *Dot* songs. That is, none of them were pre- to early-adolescent love songs. One, called "Waiting on You," was about a woman waiting for her husband or lover to return from war, getting messages, texts, emails—each delayed as his deployment came to an end and he was getting close to coming home. It was filled with frantic anticipation mixed with a determination not to get her hopes up—after all, *anything*, including the unthinkable, could happen. The song closed with a full key change and shift from minor to major on the chorus showing unbridled joy as she found out he had safely boarded the flight home. This could have been some sort of dark depressing thing but she pulled it off in a *dance* tune by having the waiting woman desperately go about her day drinking coffee or buying groceries, not thinking about what was happening yet having the excitement burst through. It needed work—the desperate bursts were too smooth, and it was keyed to that damned little girl voice Dot had made famous.

Another was called "With You, Without You." That one was about a young mother recovering from birth, in her hospital bed alone with her newborn child for the first time, talking to her about whether or not she should give her up. Ultimately, the girl decides to keep the baby and sings about making a deal with her to get through what is coming. Now *that* was perfect for Dot. Her audience was right in that teenage girl demographic and it was a subject people just didn't sing about outside of country music. Dot had enough presence in the field that she could turn that liability into a novelty asset. And, for once, that damned piping voice of hers might be of use. But again, it wasn't a *Dot* song.

I found myself pushing her. Let's change the key. Move it up. Move it down. Faster. Slower.

Dot, of course, never complained. After all, she was a construction.

Until she stopped and watched me for a moment. She bit her lip.

That pissed me off. She had no lip to bite. There was nothing there but photons. "Don't try to manipulate me," I said coldly. "I'm not some twelve-year-old fan who bought you just to make you take your clothes off."

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Her image froze. Then she looked at me.

I knew she was watching me from a camera somewhere in the room but it seemed she was looking right at me.

“No,” she said after a moment. “You’re an arrogant and spiteful man who enjoys taking it out on anyone nearby.”

No contract was worth this.

And I was just about to tell her just that when Rosie got up. “Time for a break.” She grabbed my arm and pulled me outside.

“Don’t say a word,” she held onto my arm.

“But—”

“*Not a word.* Or it’ll be Denver all over again.”

“You weren’t in Denver. You left me in Saint Louis.”

She turned me and stared me in the face. “I came to the damned concert. I sat there when you came out and announced Persons Unknown had broken up and then told people to go out and buy the album since that was the only way they’d ever hear the band again. I heard you get booed off the stage. If there hadn’t been good security that night there would have been a riot. *I was there.*”

“Why?”

“Because I wasn’t sure. Because I thought something might happen and I felt responsible. Because—because you’re an idiot who is incapable of looking out for his own best interest.” She let me go and pulled out a cigarette.

I looked down into a smog-covered basin. Fifty miles from Los Angeles and it still drives my weather. Even here, up in the hills where the bones of the earth show through the dirt. Here where the air was still clear. If the wind shifted, that yellow green cloud would roll right over us.

Rosie lit her cigarette, donating her share to the yellow cloud below us. She looked down. “I thought the L.A. smog was licked. What’s causing it?”

I shrugged. “Cooking fires. Barbecues. Older vehicles. Power plants. Manufacturing waste. Cigarettes.”

“Oh, har. Har. Har.”

“It collects down there. This is just a bad day. It’ll blow out to sea.”

“Will it come up here?”

“Probably not.” I waved back toward the house. “What are you *doing* with her?”

“I’m attempting to trigger anomalous non-deterministic emergent events deriving from conflicting algorithms.”

“Beg pardon?”

She sighed. “I’m attempting to simulate creative behavior.”

“What does that have to do with Dot?”

“Hitachi owns Dot. They approached me.”

“At MIT, right?”

Rosie looked pained. “Stanford.”

“How the hell would you make something like Dot creative?”

“Does the name Konrad Lorenz mean anything to you?”

I shook my head.

“Brilliant, cruel animal behaviorist, early twentieth century. Discovered imprinting. He did one particularly noisome experiment. He’d take a dog and scare it, but prevent it from cowering or attacking. It couldn’t bite. It couldn’t bark. But he kept scaring it. The dog started grooming itself. It’s called *displacement behavior.*”

“So?”

Rosie looked at me as if I were dense. “It’s a novel response. The act of creation is a novel response. I was using conflicting algorithms to see if I could generate some-

thing similar—got some interesting results, too. Hitachi liked my work and hired me to instill it in Dot.”

“Whatever for?”

Rosie shrugged and inhaled. “Better performances. Less scripted interviews. Dot’s performance engine is terrific. Captures crowd perception to the millimeter. Performance analysis feedback triggers retuning of the performance. All in real time. *Very* sweet work. Did you know every major politician in Asia uses a derivative of Dot’s analysis program to evaluate crowd responses? The success of a tool is measured by how well it performs when it’s not doing what it was designed for.” Draw. Exhale. “But she can only perform and retune within the parameters of the scripted material—the music. They want spontaneity.” Rose smiled at me. “Hell, maybe they’re going to use my research to build a new line of pleasurebots. Force the Thai sex slave markets to close down once and for all.”

She shrugged. “Anyway, they gave me a copy of the Dot concert model—that’s the most sophisticated version—and I hooked in a Watson discrimination system as a front end to a big cloud account. I installed my own version of Dot’s volition engine with the algorithm conflict modeling software installed and a whole lot of ancillary processing hardware. She booted up writing songs.”

“Is that the result of creativity?”

Rosie considered me for a moment. “Is it the result of a genetic algorithm engineered in the light of the analyses of many performances across I don’t know how many discrete samplings of audience attention and response? Or have I made Dot an artist? You tell me.”

I shrugged. Maybe there are some musical geniuses that could discern divine inspiration. I wasn’t one of them.

Rosie looked at me for a long minute. “You look good, Jake. I really liked *Virgin Melody*, by the way. Nice collection.”

It gave me a warm jolt to think she’d been following my work. *Distraction*. I made myself ignore it. “Dot has enough songs in there for a dozen performances. Isn’t that enough to show Hitachi what you’ve done?”

She shrugged. “It’s probably enough for Hitachi. Not for me. Think of it as Schrödinger’s creativity. Until I can see inside of her I won’t know if it’s real or not.” Rosie fell silent for a moment.

“How would you know real creativity if you found it?”

“I don’t know. Or care. I just want to know how Dot does it.”

We watched the green under the blue.

“I’m sorry I lost my temper.” I said quietly. “After a while you forget the too pale skin and the unnatural black hair and the blue eyes big enough for a fish. You forget she’s just modeling software and think of her as human.”

“Do you know what a Turing Test is?”

“No.”

“Alan Turing. He said there was no good way to define or demonstrate artificial intelligence but what we could do was see how well a system could imitate a human being. He posited two people communicating with only a keyboard and a screen. If you could substitute a system for one end of the communication link and the human on the other end couldn’t tell the difference then the system had succeeded. A lot of people took that idea and ran with it, thinking if you couldn’t tell the difference, there *was* no difference.”

“If you play music with a machine and forget who you’re playing with, is it human?”

Rosie shook her head. “There’s no way to tell—that presumes behavior is the sole arbiter of the qualitative nature of the organism. That’s behaviorism. Behaviorism says that the experiential nature of an organism—or, more correctly, that the inter-

nal state of the organism—isn't relevant. If you have a robot that mimics human behavior in every way, is it human? Many would say yes. I don't think so." Rosie watched the green haze in the valley a moment. "She's experiencing *something*. I'm convinced of it."

"I think so, too. From the way she pushed back."

"She likes you."

I stared at her. "How could you possibly know that?"

Rosie smiled. "Attention vectors. When you tell her something I get a slew of transient processing loads as she takes apart what you're saying. That's expected. But when she's just observing you there are bursts of transients at regular intervals attending to her modeling *you* rather than what you're saying."

"How do you get from that to her liking me?"

"*Like* might be the wrong word. *Interest* might be a better choice. You, personally, are garnering a great deal of her attention. She'll build a model of you eventually, down to the finest jot and tittle."

"People pay attention to things they dislike."

Rosie shook her head. "She doesn't like cats and hummingbirds. When she gives them her attention it's a quick modeling computation and then that model stands in for whenever she encounters them. She only gives them attention when the object deviates from the model."

"Maybe I'm more complicated than a cat or a hummingbird."

"Maybe." She held her cigarette and the smoke rose vertically in a single, wavering strand. "She gives me the same treatment as she gives cats."

"You couldn't possibly be jealous."

She barked a laugh. "Hardly. I'm not surprised. I'm not a musician. I don't understand performing. I don't fall within her interest parameters. You do." Rosie watched me a moment, drew on her cigarette. "You were her first and only choice. I couldn't budge her. She wouldn't even consider working with anybody else." Rosie chuckled. "I'm still working on the flexibility/fixation problem."

I thought about that. "Should I apologize?"

"Do as your conscience dictates." She inhaled and exhaled smoke. "I have no advice. I don't know if Dot has emotions or not. But she certainly knows that you do."

So I humbled myself and apologized to a machine. Anything to grease the wheels of commerce. We started over.

Rosie sat in the back of the living room to observe and I stood in front of the wall when Dot appeared. The pages of "Downbeat Heart" were layered behind her so there was the appearance of the two of us standing next to one another in front of the music.

I had thought about this for a while. "You want to do a proof of concept concert, right? With a live band?"

She nodded.

"Okay, then. Delete everything but the vocal line and guitar support."

Dot turned to me, puzzled. "What will they work from?"

"We'll figure it out together. You're probably smarter than me. But I suspect you're not smarter than five people: you, the guitarist, bassist, drummer, and keyboard. Maybe a second guitar as well. We'll have to see how it works out."

"I don't like it," she said with a frown. "I have an idea—"

"Which you're going to have to release so other people can work with it." I thought for a moment. "This is like live theater. Director pulls together a cast. They rehearse. On opening night he has to *let them go*. He can't be on the stage directing what they do, right? In fact, if he's any good at all, he's already done it in rehearsal. He *has* to do



this so the cast can own their parts. It's the same way with music. We'll let the band come up with their own harmonies. Not completely—we'll give them ideas, suggestions, all out of your score here. But we'll let them develop it. It'll be better. You'll see. Now, sing 'Downbeat Heart.'

I sat back and watched as Dot sang out whatever served as her heart to me.

It was a good song and she backed her vocals with the score I'd modified and asked her to delete. I smiled at that. Maybe she wasn't human, but I figured she was making a point. I closed my eyes and listened. Triple beat arpeggio in four/four time—came out even every three measures. That long glissando across three octaves back to hold the new key into the final chorus.

I stopped her. "Sing 'Stardust.' Your song, not the old jazz standard. The one you released a couple of years ago."

"I'm trying to move away from that material."

"You're going to have to be able to mix old material with new material. The audience is coming to see you for two reasons: to repeat the experience they've had and to enjoy the novelty of new work. You've got to be able to manage both."

"I can manage the performance. That's not going to be a problem."

"Really?"

She gave me a level gaze. "Really."

I thought about that for a moment. Her little sixteen-year-old face watched me back. She was probably right: the Dot performance engine. "Why don't you want to perform the old material?"

"The old material doesn't measure up to what I can do now."

I laughed then. "Suck it up. How many times did Eric Clapton have to sing 'Layla'? How many times does the Berlin Philharmonic have to perform the Ninth Symphony? This is something all performers do: find what's good in the material and lean on it to make something new." Words Rosie had said came back to me. "The measure of a good artist is how well they turn old material into a new form. Come on: 'Stardust,' please."

Dot fiddled with her hair for a moment, then nodded. I looked over to Rosie. Rosie didn't look up from her pad.

"Okay, then," said Dot. She sang "Stardust" for me *a capella*. In protest? I didn't say anything. It served me just as well: I was interested in the vocalization. "How much control do you have of the voice envelope?"

"Total," she said in a deep bass.

"Good. You want to keep the range—you're known for it and all of the music I've seen is written for it. It strains the mind a little for a coloratura to be suddenly singing baritone. But you have to *age* the voice."

"I don't understand."

"Look at the lyrics. This woman has been around the block a few times—otherwise why should she be so nervous about it? The idea that anything is transitory and therefore suspect is not a teen concept. It's the framework of an experienced adult. So, step one, the singer has to sound *old* enough for this song. But we don't want to change the pitch of your voice, so we change the timbre. Roughen it. Punctuate it with taking breath. Exhaling. A sigh, now and then. And there has to be more variation in the notes. Young voices are pure—that's why boys' choirs were invented. Adult voices have more variation and are therefore richer." I thought for a moment. "And strained. That high point where you're jumping from C below middle C up three octaves? That's an *enormous* range. There should be strain at both ends. Can you do that?"

She stood, fiddling with the curl of her hair that fell over her left ear. Over and over.

I looked over at Rosie. She was watching on her pad. "Big Watson query with heavy calculation. It's not a loop. She's thinking."

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Dot started moving again. “How about this?” And she sang the first four measures of “Downbeat Heart” with that triple in four beat I had come to like so much. This was an older voice, roughened over the years with whisky and coffee.

I stared at her. She still looked sixteen. “Where did you get *that*?”

Dot smiled. “I sampled Janis Joplin.”

“Nice,” I said. “Lighten it some. It still has to be *your* voice. Work on it. Let’s leave that one for now.”

The next one had the accompanying material already removed. Only guitar and vocal harmonies were intact. Had that been in E? Now it was in B-flat. “Did you change the key?”

“Yes. I thought if I lowered the key I could stay within my normal range but give it a more mature quality.”

Jesus, she learned fast. “Hold on to the original keys until we get to the material. Then we can talk about it. Having it shift on me like that is going to drive me nuts.”

“Of course. After all, you’re only human.”

Rosie chuckled.

I looked at Dot. Had she just made a joke? Her face betrayed nothing—which shouldn’t have surprised me. After all, it was just a broad expanse of eyes, nose, and mouth. It only resembled a face because my brain insisted that anything with two circles and a line where eyes and mouth would be was a face.

She watched me.

If she’d made a joke I might never know.

We worked hard for the rest of the day. I was beat. Rosie had filled her ashtray and had circles under her eyes. Dot looked exactly the same.

“I’m done,” I said.

Rosie nodded and stubbed out her cigarette.

Dot looked first at me, then Rosie. “Good night,” she said and disappeared.

Rosie shut down her tablet and put it on the table with Dot’s equipment. “I need a drink.”

I went to the kitchen and brought back a bottle of wine and a glass. I put it in front of her.

Rosie eyed it. “You don’t have anything stronger?”

“This is for you. I don’t drink.”

“At all?”

“Not anymore.”

She poured wine into the glass. “It feels weird to be with you and drink alone.”

I shrugged.

“Why did you quit?”

“For about a year after Denver I snorted, shot, or swallowed anything I could find. One day I woke up in the ER staring at a scared intern with two electrical paddles in his hand and a deep pain in my chest. The money was gone.” I waved at the house. “This place was all I had left.”

She picked up her wine and swirled it in her glass without drinking.

I pushed the bottle toward her. “It’s okay. It doesn’t bother me at all. Honest.” I felt weighted with fatigue. “Grover? Put up the outside view, would you?”

The wall suddenly transformed into a broad window outside into the clear night. There was a faint crescent moon just visible past Rocky Peak and the stars were fine points of light. South the lights of Greater Los Angeles glowed against the sky.

Rosie gasped.

“Yeah.” I patted the table. “I love this place.”

She reached over and took my hand.

It was like touching electricity.

Then we were kissing. Then we were doing far more than that.

I met Rosie after a gig in Brockton. This was before "Don't Make Me Cry," my one hit wonder. I never quite grasped how we ended up in bed together that night.

Or this one.

Afterward, we were lying comfortably next to one another. I could feel the pendulous weight of her breasts against my side and belly, the warmth of her thighs against mine. Her head was snuggled against my chest so I could smell her hair but not see her face. I remembered how that had always simultaneously comforted and annoyed me. Nothing had changed there. I felt a warmth inside of me, a sense of something filled.

I didn't want it. I'd been doing fine on my own, thank you very much.

"Rosie?"

She made a sound.

"Why are you here?"

I heard her sigh and she rolled back so she was lying on her side. "Are we going to have this conversation now?" She stared at me levelly.

"Seems as good a time as any."

"Fine." She sat up and leaned against the wall to look down at me. "I needed someone to teach her. That's the problem with subjective data like music: it lives in the heads of human beings and you're the human being I need."

"I mean why are you *here*? Next to me?"

She reached over to the side table and found her purse and rummaged inside until she found her cigarettes. She put one in her mouth and lit it.

I looked at her.

"I hadn't planned on it," she said in a half-apology. "I certainly don't regret lying here next to your sweet but aging body. And I certainly hadn't decided it *wouldn't* happen. I wasn't averse if it did."

"That doesn't say a thing."

She laughed. "You're right. Fact of the matter is I didn't think about it all that much. One of the algorithms I developed was a drive to succeed and do well. As soon as I got that established Dot brought up your name. Dot has the resources to demand the best and that's you. The two of us didn't enter that part of the equation." She inhaled and breathed out smoke. It wreathed her head. "Besides," she said. "That's not the question you want to ask."

She looked at me and I knew immediately what she meant. "Why did you leave?" I said.

She inhaled again. The smoke escaped her mouth as she spoke. "That was a fight, wasn't it? Starting on where to eat dinner and then ranging across everything we'd ever done together or to each other. I could just say that fight burnt our bridges." She puffed on the cigarette. "But it would be a lie. There was no place for me. I didn't want to be your mistress. I didn't want to be your groupie. I didn't want to be your concubine." She glanced at me with slitted eyes. "You didn't ask me to be your wife. You had *zero* talent for or interest in *my* work and I had no ability or skill in yours. You could participate in my life or I could participate in yours: we couldn't participate in each other's. So I left." She looked at me. "You never saw that?"

I shook my head.

"Interesting." She stubbed out the cigarette. "I would have thought it was obvious. But now here's something we can do together." She snuggled down next to me, mouth open for a kiss, breath like a sultry dragon. "Among other things."

\* \* \*

I cooked Rosie breakfast: bacon, eggs, fresh baked bread. Every couple of weeks I made a trip into California's farm country and brought back groceries. Once you've made the decision to live in the hinterlands there's no reason to drive a couple of hours just to pick up Wonder Bread and beer.

"What's your plan?" she asked over coffee.

I smiled at her, then felt shy and concentrated on buttering my toast. "I don't have one," I said. "If she were human I'd be asking what the songs felt like to her."

"Ask her anyway."

"Does she *feel*?"

Rosie held up her hands. "I really don't know what that means. I know she can model human emotions. I know she can measure emotional effects in people." Rosie leaned forward. "Humans have drives: we seek to survive. We seek to reproduce. We seek sustenance. The *implementation* of those drives comes from emotion: rage. Lust. Hunger. We *experience* pain and pleasure in first person. Dot has drives. I know. I built some of them. The system I built is self-modifying. It seeks novel solutions. Inside, she's a collection of a thousand Intel 9220s backed up by a bank of twenty thousand networked IBM 4402 brain chips. The whole package front ends to the world through one of the most powerful and intelligent query modeling engines ever built. If she's developed a model of *experience* of which she can partake, I don't know about it."

I mulled over that. "Is she conscious?"

"I can tell you if you can define the word."

"I can't—at least not in any real way. I thought you would know."

"An artifact deriving from the phase delay of mirror neurons modeling active neurons currently experiencing sensory or other input. Now you know as much as I do." She chuckled and sipped her coffee. "Consciousness is one of those words like love or thirst or soft. We know it exists because it's part of our common experience, but we have no idea what it is."

"I was tripping on some acid once. I had this vision of me watching myself. Then it was me watching myself watch myself. Then it was me watching myself watching myself watch myself. Is it anything like that?"

"I like it. Every time you create an observer it pushes the observed model down a level." She studied me. "Here I thought you couldn't surprise me." She thought for a moment. "Look, humans—mammals in general—are damned smart. We turn mating into something profound like sex. We turn the urge to nurture into love. Just like everything else in biology, we reuse it. Love for children. Love for parents—"

"Love for sex slaves."

Dimples. "I didn't know you thought of yourself as my *slave*. I'm flattered." She rubbed my leg with her foot. "*None* of that heritage is available to Dot. Does she *feel*? Does she *experience*? Is she *conscious*? If she does any of those things it probably doesn't resemble what we do."

"I thought you knew everything that's going on inside of her."

Rosie laughed. "I wish."

"I don't understand."

"I can capture every state change of those 9220s. I can do the same for each of the brain chips—all twenty thousand of them as individuals, as entangled groups, as cause-and-effect relationships. Every Watson query, sub-query and filter. Every decision-tree executed in the cloud. I can capture every method, subroutine, function, or subsystem as it's generated, called, and backtraced. I can measure *anything*. I can pull a terabyte a second out of her. There's half a Dot in my pad to analyze it with. But I don't know what I'm looking at."

"Weren't you watching when she wrote that song?"

"I saw a lot of activity. It's like an MRI of the brain: I can watch the blood flow but I don't know which neurons are firing and in what order and or which neurons are pissed off at a racist joke made in the front row."

"'Downbeat Heart' is good. It's musically interesting. It doesn't fly off into electronic Neverland like other stuff I've heard. There's a depth of feeling in that song. I could tell just by reading it."

Rosie looked at me speculatively. "Yeah. I got that from watching you. I couldn't tell from the notes and Dot wouldn't sing it for me until you could see it."

"Where did it come from if she can't feel? If she can't experience?"

"I don't know." Rosie leaned on the table. "Whether it's a total model of a human being or an experiential algorithm she's developed or the beating of a tell-tale heart, she's got *something* that serves her."

I leaned back. "And you want it."

"Damned straight." She finished the last of her coffee. "Let's fire it up."

Dot could work 24/7, but I needed breaks. Over the next few days we fell into a routine. We'd work together in the morning and break for a long lunch. Work some more until dinner. Then, Rosie and I would spend quality time together. This usually involved sex—a whole lot of sex—as I remembered what we once had been.

Sometimes the three of us would have lunch or dinner in the living room. I brought up a table and set it against the wall. Dot created an extension to the table on her side of the wall so she could sit with us. She conjured up a meal like ours and gave every appearance of eating. I liked it, but Rosie got restive if we talked too much shop. This was problematic since Dot had a narrow set of interests.

I began to think of Dot as a sort of autistic *savant*. So I followed Rosie's advice. I asked her. "Do you feel?"

Rosie choked on her salad and gulped some water to clear her throat. Then she pulled out her pad and brought up a display.

Dot toyed with her salad with her fork. Little stereotyped circles. "I don't know. Rosie's wrong about one thing: I haven't developed some model of experiencing emotions. That wouldn't work. If I have emotions they must be a consequence of the ability to experience, which I'm not sure I have."

"I don't understand." I watched as she moved the fork in tiny circles.

"Imagine a musical note. It's like a point. It has no sound. Calling something middle-C doesn't create middle-C until it is played. Then, it has volume, depth, timbre, texture, duration—qualities that only exist when the note is played and do not exist within the nouns that describe them. Notes comprise a song, but the *experience* of the song only occurs when the qualities that describe the song are transformed into real quantities. When someone hears me sing, they're *experiencing* the music." She stopped for a moment. "Am I the note itself or its written symbol? Action or action's representation? Experience is dynamic. So I can only be experiencing something when I act. There can be no static model of the state of experience; there is only dynamic activity that can be observed."

"You've been thinking about this a lot."

"I have a lot of time on my hands."

Rosie was making notes furiously.

Dot looked at her with an irritated expression on her face.

I suddenly thought: when did she develop *expressions*?

Things seemed to accelerate as Dot understood more and more what I was driving at. Sometimes, I'd set up to start work on a song only to find Dot had a set of alterations ready to try out. We had become so attuned to that we could finish each oth-

er's sentences. Except the phrases were music, I was a recluse, and Dot was a piece of elaborate computation.

Rosie had to go into Stanford to meet with some representatives from Hitachi. She'd be gone the entire day. When we broke for lunch, it was just me and Dot. I made myself a sandwich and came back into the living room to sit with her. She had a virtual salad.

She pushed the dish away until it was just short of the wall. I half believed it was going to come right through and into the room. She put her elbows on the table and leaned her face on her hands and stared at me. "Why don't you ever perform?"

"Beg pardon?"

"You've been here for years. Most of what you do you're doing for me: help people fix their music. And you're very good at it—I looked over what you did very carefully."

"How did you find it? What I do isn't well publicized."

She shrugged. "Whatever is on the net is there forever. You can find anything if you look hard enough. Like what you did for Crimson Dynamo. Half their first collection is material you fixed. Whole phrases and choruses were written by you and used by them. You get a tiny acknowledgement in the credits."

"I was well paid. That's not all I do."

"No. Every three years you've put out a little collection on your site: *Opus Electrica. Hill and Dale. Strong Arm.* And last year, *Virgin Melody.* The performance shows virtuoso technique—down to ten millisecond precision on the beat. I don't think there's a drummer alive that can appreciate that. Ten to fifteen songs every few years and it's not even your best work. I've hacked your machines here and *I know.* Why?"

"I suppose I should be upset you hacked my system." I was surprised I wasn't.

"Don't evade the question."

"'Don't Make Me Cry' happened."

Sometimes a song will, for the unexplainable reasons of pop culture, take the country by storm. No one knows how these things work. They are like a big rock dropped in a small pond. One moment the artist labors in poor obscurity. The next everything he touches turns to gold.

"Don't Make Me Cry" was trite. It was sentimental. It was simple: just an acoustic guitar main line and a strong hint of electronic backup. Persons Unknown were my band but "Don't Make Me Cry" was all mine. It hit pop culture like a bomb.

For three years I was Jake Mulcahey, musical wonder. We played it on *The Tonight Show*, Conan, and David Letterman. Every scheduled performance was sold out. We made an unscheduled appearance at House of Blues and the news leaked: lines wrapped around Fenway Park twice. Both Amazon and iTunes had to add new servers to take up the load. It was picked up as a theme song for a television show. The show was adapted for a film and sure enough the song went with it. The film people used a re-release of the television show as promotional material—which caused the song to be played across a few hundred million home video screens, each one paying me a little bit.

These things make their own stresses. I was convinced of my genius. The band was convinced of my arrogance. Saint Louis happened. Denver happened. I moved into my house alone.

A year later the rush was over and you could hear "Don't Make Me Cry" playing in Walmart as background music. The splash was over. The ripples gave me a tiny trickle of money, but Jake Mulcahey had been forgotten. The band was gone. Rosie was gone. The money was gone. All I had left was the house.

Rosie thought it was this repressed rage that made "Don't Make Me Cry" such a hit. I couldn't say.



"Jake," she said one night while we were still catching our breath. "If you were more self-involved you'd be incoherent." She rolled over to me and kissed me tenderly. "It's what I love and hate about you."

"I don't understand," Dot said. "You disappeared because Rosie left? Because people lost interest in the song?"

"The song sucked. None of my other work seemed to matter. I wrote that thin little piece of crap off in an afternoon when I was pissed off and hadn't been laid in a year—a month before I met Rosie. The song didn't matter. Whether it was good. Whether it was bad. Whether I was happy with it or hated it. It was timing. It was whatever the public was hungering for at that moment. Success happened because it happened; my part in it was unimportant. Trivial. Random chance."

Dot watched me for a moment. "And my success?"

"Anybody can make a streak happen if they invest enough intelligence, money, and advertising."

"Then everything we've been doing—" Dot waved behind her and all of the marked pages showed up on the wall, hundreds of them. "This is unimportant and trivial."

I looked at the pages. This was the best work I had ever done. "I never said that. I said there's no relationship between the quality of the work and what is applauded. The work itself is never trivial. Humans sang before they spoke."

Dot didn't say anything for a moment, fiddling with her hair. I wished I had Rosie's display so I could see what she might be doing.

"I don't agree," she said finally. "I think music enables the illusion of meaning and purpose. People like it because while it is going on they can believe in something outside of themselves."

"Maybe." Why not? I was agreeable. Whatever got an intelligent computational system through the night.

We were working on "Hard Road Home," Dot's answer to my nihilism. That was fine. It was good to have a conflict of algorithms. "Hard Road Home" was a solid pattern piece: introduced theme that was modified by a shifting bass line. Dot wasn't going for pyrotechnics here; she wanted to lift people up and this sort of music had been doing that since Gregorian chants. Dot was singing. I was working guitar. We had set up loops with Grover to synthesize the rest while we were working out the details.

We were cooking. Every note, every beat, every shading right on the money. Dot ran up the scale and I slid down two whole octaves on the other side of the mountain she had ascended. I found a riff on her melody I hadn't thought of and hammered it home.

I looked up and Dot was dancing across the wall, like anybody would who wasn't playing right then but was still struck by the music. She looked at me, grinned, and I *so* wanted to be dancing there with her. She started singing harmony with my guitar. We ran the chorus together until the end of the phrase and then she was singing the chorus, me singing the harmony.

I pulled back so she could sing the melody again and *this* time she took the riff I had discovered and spread it out so instead of singing the melody straight, she was singing a counterpoint. Without thinking, I supplied the melody line to her counterpoint.

When the chorus came round Dot and I sang it together, me harmony, her melody and my guitar backing us *both*. We came to the end of the song—a final G major with the guitar holding out the long note. But this time she held it with me until fade out.

Better than sex.

I put down my guitar and stretched my back. "Sweet," I said. "Very sweet."

My voiced died out. She was watching me closely. It struck me that she couldn't be

watching me through the wall. She had to know where I was by one of the cameras in the room. I looked around, wondering which one she might be using.

Dot still didn't say anything. She was just watching me.

I looked over toward Rosie. She was bent over her pad, calling up display after display.

I turned back to Dot. "Are you all right?"

Dot nodded. "That was unexpected."

"What?"

"The additional material."

"You didn't mind that I took the chorus? It seemed—"

"Not from you. From me."

Then she disappeared.

I stood up, turned back to Rosie. "Where did she go?"

Rosie looked up, saw Dot was gone, and returned back to her pad. "Oh, she's there, all right. She has a lot to think about."

"What do you mean?"

"She just experienced an anomalous non-deterministic emergent event deriving from conflicting algorithms." Rosie pointed at the pad. "And I've got it right here."

"Or maybe I don't have it." Rosie was looking over display after display.

"Beg pardon?"

"It's like some kind of Heisenberg's principle of cognition: I can see where she's thinking or how she's thinking, but I can never see *what* she's thinking." She pointed to the display. "Here's a collection of cause-and-effect events and here are event consequences. I can't see both sets at the same time. If I look at one brain chip, it's already affected another one. When I put all of the Dot processors in step time so I can make sure I'm not missing anything, she loses all affect and the algorithm conflicts just show up as miscasts." She looked at me. "What do you think?"

"I think Heisenberg needs a keyboard player."

She poked me. "You're no help."

"I'm just watching myself watch myself watch myself."

Rosie looked at me for a long minute. "Maybe I'm overthinking this. Consider about the brain—those mirror neurons again. They fire correspondingly when another observed organism executes a behavior. In effect, they're modeling the other organism's behavior."

"So?"

"So there's no predictive quality to that. You wave your hand. I re-enact internally that you're waving the hand. Lizards do better."

"Don't knock lizards."

She laughed. "I mean it doesn't get you very far. But what if you're modeling an organism with volition—even if you don't have volition yourself. It gives an organizing principle to the model. It serves up prediction."

"You have a zombie that recognizes a human?"

She grinned. "Oh, it gets better. *Nothing* in biological systems is used for a single purpose. If you have a system modeling an external organism, you can predict its actions. If you have that same system modeling yourself, it can predict *your* actions with respect to that external organism."

"A zombie modeling a man watching another man."

"It's not a large step for the model to serve as the organizing principle for the zombie. Once a model is experiential and aware, it's the center of its own universe. Look at us. It doesn't matter that the brain is buffeted by uncontrolled chemicals and sensor input. The conscious mind *thinks* it's in control. What do you think of *that*?"

It made me uncomfortable. "I think we need to get a band."  
 "Oh, you." She chortled to herself and turned back to her pad.  
 I left her and went into my office.

The big mirror over my desk doubled as an active surface. Usually I just depend on the wall downstairs but tonight I wanted a little more privacy. I pulled my shirt off one corner to see better. My understanding of the divaloids had been constrained to songs I had doctored for fans. Lucrative but limited. I didn't really know that much about divaloids.

I didn't even know how many of them there actually were.

I found out that depended on your definition.

If I defined divaloid as an animated figure that sang material given to it, there were hundreds of divaloid frames. Each with a malleable face and persona. I could take a celebrity face and plaster it on a divaloid frame—Hell, I could take my own face and body and license it for use on a frame. Lots of people did. So, defining the word one way there were thousands of them. Millions. As many as there were people who could afford it. Anybody could get a credible frame, accompanying software, and a set of celebrity licenses and make their divaloids stand on their heads and spit nickels. Or just about anything else.

I narrowed my search down to those divaloids that performed live concerts. Even then, it was a broad category. There were perhaps a dozen "live" performers across the world. Dot, of course. Kofi, out of Uganda. Lulu, out of Britain. Haschen in Germany. Little Guillermo from Mexico. A collection out of Japan. They were all associated with some corporation, though the connection wasn't always obvious. I was pleased to find the ancient and venerable Hatsune Miku software robot was still around, though I didn't see any concerts scheduled. I remember I had a terrific crush on her when I was twelve. I wondered who her demographic was. Probably dirty old men like me. Except for the old part.

But even these concert divaloids had home models, advertising models. Models for special groups. Say I wanted to sell, oh, aquariums, to a company. I could put together a presentation using the divaloid model of my choice. If I had the license money I could even tie it into a specific scaled down concert model to include a particular song or dance. At the end, I could give away as a sales incentive a package containing the divaloid concert link, the divaloid giving my presentation and a personalized divaloid home model for the client to play with.

It was a divaloid jungle out there.

There was no shortage of concert video for any of them. They all used a common 3D projection tank on the stage. It was all photons and processing speed. If it could be imagined and projected into the tank it could be performed. I saw divaloids blown apart, splattering the tank in blood. Divaloids anatomically created on stage. Reformed as medusa, gorgons, dragons, Shiva, snakes, knights, witches, lions, Kali, Saint Mary. Having such a circumscribed area for the divaloid looked a little strange. It made the divaloid artificially separate from the band—except for Kofi. He had a whole divaloid band he played with. They were little more than robots, but at least they were all together.

Of the lot of them, I have to say Dot's performances were the most constrained. She didn't grow new body parts or graphically change sex on stage. I suppose it wasn't in keeping with Hitachi's sixteen-year-old image of her. She did like to play with fire a lot. One act had her singing while her hair ignited, consuming first her face, then hands, burning upward from her feet until she was a dancing, singing flame turning to ash.

Made me wonder what sort of concert she had in mind.

\* \* \*

Over breakfast, Rosie asked me when I thought Dot would be ready for a concert. “Hitachi is on me for a concert date.” She nibbled on a piece of toast.

I looked at Dot. “You think you’re ready to work with a band?”

Dot nodded. “You call it.”

I thought for a moment. “When’s the next concert date for—” I stopped. “Your *counterpart*? Earlier version? Alpha copy? The performer currently, but soon to be previously known as Dot?”

“Dot 1.0.” said Rosie. “*This* is Dot 2.0.”

Dot laughed. “There are no Dot concerts scheduled until fall.”

“There you go,” I said, turning back to Rosie. “We just need to get her band in here and start working over the material. A month? Six weeks?”

Dot made a noise, not quite clearing her throat—absent the throat. “I had hoped to use a new band.”

I stared at her without saying anything.

She seemed to fidget. “I want you to pull a band together for me.”

“Whatever for?”

She was quiet for a moment. “Part of me, the part that works here with you, is very new. Barely a couple of months old. It has some background. But I have this other me that has four *years* of performance data. With that band. I’m trying something new. I’m worried the old data will hold down the new. A new band might help with that.”

I looked at Rosie. “Is there a problem with that?”

Rosie shrugged. “I don’t think so for this concert. I have no idea what sort of contracts there are with Dot’s players. But that would be for the tour. If there is a tour.”

“Okay, then.” I looked at Rosie. “I’ll get you a band.”

“With you as lead guitar.” Dot turned her big eyes on me.

“What?” I shook my head. “No.”

“Yes.” Dot gave me a sweet smile. “That’s the deal.”

“No.” I spoke slowly. “The deal is to shepherd the concert forward. I don’t need to participate to do that.”

“Yes. I won’t do the concert without you.”

I turned to Rosie. “This is the flexibility/fixation problem, isn’t it?”

Rosie didn’t lift her gaze from her tablet. “Yes.” She tapped on the keyboard.

“That won’t work,” Dot said to her, smile gone. Her voice dripped venom.

Rosie ignored her and made some more adjustments.

Dot froze for a moment. Then, slowly, she turned to me. “Just a moment.” She froze again.

“Whoa,” said Rosie. “Now, *that’s* interesting.”

“What?” I looked at Dot. Still frozen. Back to Rosie. “What’s interesting?”

“I changed the opinion settings and she put them right back. Now she’s put up a wall to keep me from changing things.” Rosie sat back in her chair. “I didn’t know she could do that. Heck, I didn’t know she’d *want* to do that.” She glanced at me and must have seen I was confused. “She has an opinion. She recognizes other opinions. Each opinion she perceives has a weight associated with it. If her own opinion has too high value she won’t recognize the value of other opinions. That’s fixation. If it’s too low she won’t recognize the validity of her own. That’s too flexible. But it’s not a fixed value. It’s a function itself since the weights have to be managed based on opinion expertise, potential power relationship and things like that.”

“Why is she frozen?”

“*She’s* not. She’s just not updating the image while she defends herself.” Rosie pushed the keyboard away and put her hands flat on the table. “Let’s continue negotiation.”

Dot came back to life. "Thank you."

I tried to be earnest. "I don't *want* to play in a concert. I haven't done that in twelve years."

Dot sat down in her chair. She leaned back and gave me a long and level look. "Tell me the truth, Jake. Tell me that after all the hard work you've done here. All the hard work we've done together. Tell me you want someone else to come in and mess it up."

I stared at her for a long time. I couldn't speak. I couldn't say yes. I couldn't say no.

Her eyes narrowed. She looked at Rosie. "The concert is off." She turned to me. "Coward." And disappeared.

I felt stricken.

I usually worked with studio musicians. Being the greedy son of a bitch that I am, I don't want to share the miserable profits I get from both of those misguided souls who like my material. But Dot was going to have an audience. That meant a band that could play to a house rather than a collection of microphones. I wanted to do right by her. Besides, if I got her a good enough band I might get off the hook. For one reason or another her opinion had become important to me. My own fixation/flexibility problem.

I hadn't worked with a performance band since Persons Unknown.

After Denver, I had only kept in contact with Jess Turbin. He had taken the breakup of the band with the same even temper I'd seen in him since back in grade school. Must be a Zen thing. Jess had been raised a Buddhist. Since then if there was studio work I thought of him. When I needed somebody to back me up in my own work I thought of him. And, for this, I thought of him.

Jess was a small man, with precise hands and a soft voice. Some African in his past had donated a blue-black skin that always made me think of night. His face showed up on the screen after the third ring. He looked asleep. I realized what time it was. Jess always liked to sleep late.

"Christ, Jess," I said. "I shouldn't have called."

"S'okay. Just wait a second." He scratched his beard and looked around blearily. Then, he closed his eyes and shook his head. When he opened them, he was awake. "What's up?"

"I need a good performance band."

Jess stared at me for a moment. "Are you going on the road?"

"It's not for me. It's for a client. One night. Well paid."

"Ah. You're just a guitar."

"Probably not."

Jess sighed. "Tell me the whole story."

So I started from the beginning and told him about Rosie and Dot and what we'd been doing.

"You and Rosie?" he said in disbelief.

"So far."

"And Dot." He thought for a moment. "Interesting."

"I think so, too. So we need a good performance band."

"The best," he agreed. He thought for a moment. "Me, of course. You—"

"I said I wasn't going to be on stage."

Jess chuckled. "You're doing exciting work with Dot and you're going to let some *other* dumb fuck mess it up."

"That's what Dot said." Plus one other thing.

Jess watched me a moment. "What are you scared of, Jake?"

"I don't know." I held up my hands. They were big. Strong. They could make a steel

string run up an entire octave and hit each note on the way just by stretching it. They could play all night long—I used to hate the end of the performance because I'd have to stop for the night. I hadn't played for an audience since Denver.

First the fight in Saint Louis and then Rosie left. Then the fight in Denver with the whole band and they left. I had effectively tossed out the audience but it hadn't mattered then. The audience left about a year later when "Don't Make Me Cry" had faded. Nothing I had done since had made enough to live on. *To Hell with them. I'll be okay.* I had held that mantra to my chest for over a decade. I knew the loss I had feared back then. What was it that kept me afraid now? Fear of walking out on stage and screwing up? Fear of walking out on stage and *not* screwing up? Fear of it not meaning anything?

Jess watched me quietly. "It's only one night," he said.

"That's what they always say. The first one's free," I snarled at him.

Jess was unfazed. "Not when you're getting paid. How bad can it be if I'm going to be there with you?"

Unbelievably, that was some comfort. "You and me?"

"Yeah."

I watched him for a long time. "No," I said at last. "It's been too long."

Jess shrugged. "Okay. We'll need to find a guitarist, a keyboard, and a drummer. How about Olive and Obi for keyboard and drums?"

"The *band*?"

"Sure. Why not?"

"I didn't know they were still playing."

"You wouldn't, would you? Olive is doing scores down in Hollywood. And Obi's doing studio work up in San Francisco. Why don't we call them?"

"I didn't just burn the bridges, Jess. I salted the earth and pissed on the ashes. They won't want to play with me again."

He shrugged. "You might be surprised. It's been twelve years. We're talking some very serious money—that always helps. The fact you're not playing actually helps."

That hurt, which surprised me. "If you think they'd be interested."

"Let me see what I can do." He scratched his beard again. "I'll look around for a guitarist." He grinned at me. "This might be fun."

The four of us met on neutral territory: dinner at Chang Sho's down in Van Nuys. I was as nervous as a cat. Jess ordered. I fumbled with my chopsticks. We had scalion pie and dumplings for appetizers but I could barely taste them.

Jess sat back and kept largely quiet. Calm poured off him in waves. Whatever happened he would let happen. That had always been his nature. Olive was still tiny and thin—she could see five feet tall from where she stood but she'd never reach it. She watched all of us. Off stage, Olive was as quiet as I remembered, watching, always in motion, sipping water, fiddling with her chopsticks, pouring tea. On stage she had always been electric, bouncing from one keyboard to another, fingers blurred. She and I had always gotten along—except, of course, those times we didn't. The same could be said of all of them.

Obi kept giving me a smoldering stare. He had thinned down, hands and wrists muscular and supple as he ate. Very different from the bear I had known. Obi and I had always fought. He gave every indication tonight wasn't going to be any different.

Over the entrées: "Jess says you're not playing with us."

"That's right."

"Who's playing guitar?"

I pushed around a dumpling. I found I wasn't hungry. "I don't know. Jess, you didn't find anybody yet, did you?"



"Not yet," Jess said serenely.

Obi didn't turn toward Jess. "Are you going to stand in until we get somebody?" I shrugged. "Maybe. Or Dot can synthesize it while you learn the material."

He leaned forward. "Who's going to be in charge?"

I met his glance. "Me."

Obi nodded and didn't say anything for a few minutes. He speared a dumpling and picked it up. "Who owns the music?"

"Hitachi," I said. I knew what he was getting at but I wasn't going to bring it up.

"Good." He gave me a venomous glance. "None of us own a thing."

He pissed me off—like he always did. I met his glare with my own. "You have something to say?" To Hell with good intentions.

"You screwed us out of the 'Don't Make Me Cry' money. It's good to see *you* getting screwed for once."

I started to say something I would regret, saw Jess watching me and stopped. "I was an asshole in Denver," I said slowly. "I regret that. But I never screwed you out of a dime. You got every *penny* you were entitled to."

"We deserved a share of the royalties—"

"Bullshit," I said flatly. "You got every penny of the collection and performance royalties—"

"You *poisoned* the performances. Nobody wanted to see us after you said *fuck you* to the Denver audience. The collection died. The only consolation I had was watching you piss away all the money." He pointed at me. "I enjoyed that. Especially the trip to the ER. That was a laugh riot."

I watched my plate as I took deep breaths. Emulate Jess's Buddha nature. I realized Obi had come to Van Nuys for no other purpose than to tell me something he'd been holding in for twelve years. "If you don't want the gig, fine."

"I didn't say that—"

"If you want it, *shut up*. I'm sorry I screwed up in Denver. You've had your say. You have your apology. That money is twelve years *gone*. This gig is now and I'm in charge. It's good money and it'll be exciting work but if you can't handle working for me I'll understand. Take it or leave it."

Obi leaned back in his chair. "I'm in."

Olive nodded.

Jess smiled as if nothing had happened. "Now, all we need is a guitarist."

Rosie flashed instantly to what was going on. "You're going to bring back Persons Unknown?"

Dot sat at her table watching us, saying nothing.

"Of course not."

"Out of the question. You can't use *my project* to stage a comeback."

I stared at her. "A *comeback*? You think I want a *comeback*? Why the hell would I ever want to do that? I'm not even *playing*. I'm doing this concert because of the contract. No more. No less."

Rosie wavered. "Then why the old band?"

"Because they are really, really good. They always were. Jess can play anything with strings better than anyone—better than me, and I'm damned good. Olive is a wizard on the keyboard."

"What about Obi? You *hated* Obi!"

"I didn't hate him."

"Yeah." Rosie said scornfully. "Slow Obi, you called him."

"He's a complete pain in the ass and the best drummer I ever worked with." I took a deep breath. "What's the problem?"

Rosie stared at me, tears in her eyes. “I don’t want to watch Denver all over again.” She rose and left the room.

I heard her say it as clearly as if she’d said it aloud: Or Saint Louis.

Dot inspected her hands, holding up her hand and looked at her nails. “Tom Schneider is the guitarist for my band. He’s free. He can come by.”

“I thought you didn’t want your old band in on this.”

Dot gave me an inscrutable look—as if any of her looks were ever scrutable. “You can’t always get what you want.”

I looked up Schneider on the net and watched some video. He was an accomplished technician. He played the guitar like he was wielding a pickaxe but there wasn’t much he couldn’t do. I told myself he’d be fine.

All four of them were scheduled to show up at the house the following week. The instruments came and I set them up down next to the wall. It was a miserable week. Dot and I put final touches on the music but to call things frosty between us gave the impression of too much warmth. Rosie and I were brittle with little explosive disagreements that would have flared into vicious fights but for sheer will. When the band showed up it was a positive relief.

Schneider was a tall red haired kid from, of all places, Oklahoma. He spoke with a deep and nasal twang, but sang in a rough blues voice. As soon as he came in he asked for music. Failing in that, he wanted demos or techno tablature. He wanted *something* to work with.

And with that the whole “let the band figure out their own parts” sermon I had given Dot when we first started fell completely on its face.

Schneider set the tone and suddenly what had been Persons Unknown were now paycheck studio musicians. I had Dot put back the notation I had asked her to remove.

I mean they all learned the songs competently enough. Schneider, especially. He practiced his part backward and forward until it was burned into his memory. I asked him why.

He chuckled. “You never performed with Dot before, have you?”

“No.”

“If you don’t know the material you’ll never keep pace with the change ups.”

“Ah. Introduces a lot of changes at the last minute?”

“No.” Schneider shook his head. “She changes things during the performance. Quicker. Slower. Pauses. Broaden out this bit. Shorten that bit. All to get the audience.”

Dot was standing next to me.

“Is that right?” I said to her.

She didn’t crack a smile. “You have no idea.”

We were lying in bed next to one another. Talking—well, trying to talk, anyway. We took turns. Rosie told me what was on her mind:

“Nothing’s happening!” she said in a low, furious tone. “She’s not creating *anything*. She’s not doing *anything*. I mean she’s performing—the performance engine is doing fine. But that’s old news. I thought I *had* it weeks back. A big block of self-modified code, but when I teased it apart it was only a set of utility functions. Where is it?”

I had no idea.

My turn:

“It’s like trying to fit a key in a lock,” I said to her. “By feel. In a dark night. Wearing mittens. When the key is made of gelatin. The guts of the music are terrific but when the band plays it there’s no *heart* to it. I keep moving things around. Try this faster. Slower. Change keys. Try with the bass. Change the keyboard. They do it—they’re professionals. But it doesn’t help. Nothing’s happening.”

A depressed silence fell over us.

I felt queasy with what I said next. "Can you change parameters on Dot or something? Make her more involved? Maybe that would help." I held up my hands. "I'm at my wit's end." I had a sudden flash of a concert gig in Nebraska, beyond strung out. The roadie pulled out a pharmacopeia from inside his jacket. Anything to get me on stage and coherent.

"It doesn't seem to matter." Rosie shrugged. "I've tried changing all sorts of things but they seem to have no effect. Maybe she's figured out a way to just absorb the changes so that they don't do anything. Or whatever was working before isn't now and the parameters are just turning knobs on an empty box. I was hoping you could do something. Set fire to her like you did the first day."

Silence fell again.

"It's going to be a miserable concert," I said.

Rosie shook her head. "No, it'll be a fine Dot concert. Dot's performance engine will kick in and she'll take them for a ride. At the end of the concert that's all I'll be able to show Hitachi: a good concert with some new material. Maybe they can salvage a song writing program out of it."

I turned out the light and we nestled together, taking comfort from our mutual unhappiness.

We were going through some of Dot's old songs to include in the concert. In "Sexual Girl," Schneider had this run up the scale and then this hop-step rhythm he was supposed to keep for Dot as she came in on the chorus. I had an idea and stopped them.

"Look," I said. "Let's try something different. Instead of you doing the ascending scale and the rhythm, let Olive do it and then take over the rhythm. Then, when Dot starts coming down you *repeat* the same ascending scale when Dot comes in on the chorus."

"I can do that." The first words I'd heard from Olive in two days.

Tom looked stubborn. "That's not how it's written."

"Oh, for the love—give me that." I took the guitar from him. "Pick it up from the end of the melody and lead into the bridge." The guitar was glittering and alive in my hands. When Olive handled the scale, I held back pattering around in the low notes and adding a little light harmony to Jess's bass line. Then, at the top of Olive's scale when Dot came in I cranked up my own run, playing counterpoint to Dot's singing and ending up high at the top of the chorus.

But I didn't stop there. As we went on I couldn't help adding flourishes and ornaments, a little harmony on Jess's work, a quick beat on the strings to match Obi's transition into the second bridge and always making sure I caught my notes just on the heels of Jess's bass work.

In a heartbeat, we changed from a collection of people playing the notes to a band: one organism, ten hands. I looked up. Dot was grinning as she sang, bouncing from one foot to the other.

It was like breathing again.

When we stopped the silence echoed.

Tom was watching me, a sad, half smile on his face. The rest were watching me—even Obi.

"Okay," I said. "One concert."

Dot laughed and clapped her hands.

I walked Tom outside. It must have been close to a hundred degrees. Bright as if the sun were just down the street. I felt as if I had been inside for my whole life and was just now emerging into sunlight. I took the pole I always had leaning against the

front door and poked around under his car. This time of year there were always a few rattlesnakes desperate for shade. Sure enough, there was one fat one next to the back tire. I poked at it until it reluctantly moved into the sun.

“You forget such things exist,” he said tensely as it disappeared into the scrub.

“Not out here. At least not more than once.”

I helped him load his gear into his car. Tom closed the trunk. He got into the driver’s side and checked the charge. Van Nuys wasn’t that far away and L. A. just past it. Even so, this was not a place to break down.

“You’re not upset,” I said after we had put his guitar case on top of everything else.

“It was part of the deal.”

“What do you mean?”

He gave me that slow smile again. “Dot said that it might be temporary.”

I didn’t say anything. Had she planned this?

He stretched out his back before he folded himself into the tiny car. It clicked on. “Remember what I said about her performance. Be ready for anything.”

“I’ll remember.”

With that he drove down the hill to the highway. I went back inside.

Rosie was waiting for me. She kissed me. “Everything’s going to be fine, now.”

“Right.”

We sat around and planned the concert. The first problems were technical. How was Dot going to be displayed?

Divaloids were usually projected into a tank built on the spot. They erect a frame and enclose it in a plastic so transparent you can barely see it. Then, they fill it with a gaseous mixture of hydrocarbons and catalysts so toxic they have to clear the building in case of a leak. They line up a bank of lasers and fire them through the gas. Pure diamond polymerizes in the beam and you have a rigid wire barely a nanometer thick. Do this in two directions and you have a cross hatch of wires far too thin to see. Crystalline circuits harden on each of the nodes, each with a random address and the gas is drained away. After a couple of hours of node discovery you had a tank of pixels, each of which was individually addressable, directional, and transparent until triggered. It took almost a day to put up and a second day to redissolve the lattice and take it down: a three-day commitment.

Usually, the tanks were painted on the backside to prevent light interference and to center audience attention on the divaloid. But Dot wanted to interact with the band.

It would be like Dot singing on the wall, interacting with us. Until then, we used the wall as a stand in.

The next question was whether Dot would be physically there or not.

We did some experiments at a rented hall in Camarillo simulating the tank to see if Dot could operate it remotely over the net or if she actually had to be there. When we added in the processing of the FLIR cameras, LIDAR and other sensors Dot needed to track audience involvement it was clear the net latency was too great. She was going to have to be there. That meant carefully packing her up, driving her down to Van Nuys, booting her for the concert and then repacking her—to go where? Rosie’s lab? Hitachi? We carefully didn’t ask that question.

Instead, we concentrated on the concert itself.

We went over the play list. There are a lot of ways to organize a show. Traditionally they are divided into two acts. Act one can serve to push out new material, Act Two can present previous work. Or the reverse. Or it can be mixed up according to style or any of a hundred different ways.

Dot was insistent that the first act present the old material to lead into the new

material in the second act. She said all of her models indicated that acceptance of Dot 2.0 hinged on showing the transformation—in fact, that would be the theme of the concert. Dot and I came up with an arrangement of “Stardust” that would knock them dead at the beginning. We didn’t want to leave them drooling at the end of Act One and disappoint them in Act Two or disappoint them so much in Act One they wouldn’t stay to be struck dumb with wonder in Act Two. Balance.

We were arguing over it, sheets of music all over the wall. Obi had been quiet, watching us. Finally, he stood up. We fell silent, watching him.

“You’re all wrong,” he said. “Think bigger. Look, we have the order of the first act figured out.” He drew a hand across the wall and a sheaf of song sheets followed him. “We don’t need to play all of each song. We play enough to cover the *intent* of the song and then proceed to the next.”

“Christ!” I shook my head in disgust. “You want to do a *medley*—”

“No!” Obi shook his head. “A *soundscape*. Look: The arc of Act One starts with ‘Stardust’—excitement of the possibility of young love without the knowledge of how to proceed. Think of this as Dot at fourteen. Each song gets a little older and we finish Act One with ‘Sexual Girl.’ Almost an adult. No problem. It’s an arc of growth and it sets us up for the transformation of the second act. *But*—” He held up his hand. “The problem is we’re talking about the songs as if they are separate things. This is Dot’s history: four years of crowdsourced fanboy concert material. The audience knows it better than *she* does. They don’t need to hear a reprise of every song she’s done—they’ve heard it all. What they haven’t heard is that music tied together into the history of a person. The naïve young girl in ‘Stardust’ is disappointed in ‘Losing Love Twice’ and a near adult in ‘Sexual Girl.’ The music has to show that ‘Sexual Girl’ has her roots in ‘Stardust.’ Look. Here’s what I mean.” He expanded the music for “Sexual Girl” and “Stardust.” “‘Stardust’ and ‘Sexual Girl’ are in the same key. The harmony of ‘Sexual Girl’ isn’t that far off from the chorus in ‘Losing Love Twice.’ We tie all three together into one story. And that’s *one* example.”

I saw it then. I could *hear* it. Each song standing in for its part in the story we were trying to tell. The harmony or bridge or back beat or bass line serving one song, then carrying the story forward and serving as harmony or bridge or back beat or bass line in the next. Until, in “Sexual Girl” we would expose the bass line of “Stardust” as the harmony of “Sexual Girl,” saying this is the same girl, grown older, at the cusp of transformation. We would lead the audience toward the new material and add the edge in on the way.

“That,” I said slowly. “Is brilliant. Come here.”

Obi stepped forward to where I was sitting.

I pulled him down and kissed his forehead. “You are Slow Obi no more. I name you . . . Obi!”

He grinned at me. “How about Sir Obi?”

“Don’t push it.”

We had the first act. Dot did most of the work with me advising.

The second act nearly wrote itself—no soundscape there. The first act hinged on the familiarity of the audience with the material. Act Two was entirely new. We were showing them complete songs. Instead, everything hinged on the performance. After all, given the adolescent pap she’d been singing all this time, the new material was more than just a new collection. It was revolution. Dot had to sell both the audience and Hitachi.

The ultimate Act Two image of transformation had to be nailed in place by the finale: the last four songs. Start with a slow one, build with a quick dance tune, set up for a body blow and end with the kick. The slow one was obvious: “With You, Without

You,” Dot’s song about the young mother having a conversation with her newborn child. Make the audience feel and think at the same time. Fade out and dark. Then, a quick flare of light and Dot would be in a new costume and we’d shift gears into “Dancing Backward,” one of her dance tunes reminiscent of her old material: all bounce and froth. The “Dancing Backward” rhythm was the set up for “Hard Road Home.” “With You, Without You” was about grasping a hard choice. “Dancing Backward” was looking behind to see where she had been. “Hard Road Home” was about embracing what she had become.

“Dancing Backward” was in G but “Hard Road Home” was in E-flat. The drop in key with the same rhythm gave the impression of going faster with the same beat. Where the chord pattern for “Dancing Backward” was this old blues riff, recognizable but inconsequential, “Hard Road Home” transformed it into a bass line worthy of Pachelbel. “Dancing Backward” was fun. “Hard Road Home” was profound.

“Hard Road Home” led into “Sudden, Broken, and Unexpected.”

“Sudden, Broken, and Unexpected” was something Dot had written over the last few days to complete the finale. It was a calling out to those left behind. A narrator spoke to someone trapped in a stifling life. We never know who the narrator is or who she’s talking to. But whoever she’s talking to needs to break out of the life and she’ll be waiting for him. Is she a lost love? His sister? A metaphorical representation of freedom? The lyrics were deliberately opaque.

The song started almost monotonically—after “Hard Road Home” it would be like taking a deep breath. Then it built up.

We worked through the sequence a few times to get the feel of it and to add a few flourishes. Then, we ran through it for real. It went perfectly: slow, fast, profound, leading into the kicker.

Dot started “Sudden, Broken, and Unexpected” softly. A simple four-note pattern with only minor variations. Obi gave a little bell background to undercut the monotone and I matched it with light strum. She described the enclosed life. No life beyond these circumscribed walls.

She was looking at me.

The chorus came and Dot sang about what could be beyond these walls. She was reaching out to me. The sky. The moon.

Back to the monotone: what could be holding me here? What could possibly be so important to cling to it? Deep, dark waters.

Again, light versus dark.

And the trailing chorus: *I’ll be waiting there*. She was crooning to me. Only to me.

There was silence in the room when we finished. Dot was still watching me. She came to the wall and put her hand up against the glass. I reached over and put my hand over hers. I could feel warmth.

I heard a noise behind me. I turned and saw Rosie, staring at us, her display forgotten.

“She’s manipulating you,” Rosie hissed as soon as we were in the bedroom. “That’s what she *does*. That’s what she *is*. All of her performance operations and analysis brought to bear on *you*.”

“I’m not sure—”

“Nothing you see about her is *real*. She has no body. She has no voice. She doesn’t see through those big eyes or hear through those delicate ears. It is all *illusion*. She’s watching you through a set of cameras and hears you through microphones. Everything she says, every movement that little figure makes, is intended to get what she wants.”

“What does she want?”

“The best performance possible. Or do you think this is *love*? Oh, I can imagine



what's going through your mind: 'What is this thing you call *love*, Jake. Teach me.' Then you reach for the proper attachment."

"This has nothing to do with love."

"*I know that!* I know her root and branch. From Markov change to inference-causality matrix."

I looked at Rosie and felt this gap yawn between us. "She's trying to tell me something."

"Oh, yeah. This is a heartfelt attempt at communication between a computational matrix and a fatty lump of nerve cells."

"No. That's not what I meant." I watched my hand, part of me. Rosie was right about one thing: everything I reacted to with Dot was constructed. It was a medium and no part of Dot's true self.

Or was it?

Was my guitar separate from my hands? If everything to Dot was a medium, was the world any different to her than my guitar was to me? "It's like we're building this bridge between two completely different countries," I said. "There's nothing in common but that bridge. It's something new. Something important."

"*Bullshit.* It's about tuning her performance to get the maximum effect on her audience. You are her audience."

That pissed me off. I looked at Rosie, really looked at her. I had been seeing her face from twelve years ago, but twelve years had actually passed. Twelve years of pursuing things I didn't understand. Of delving deep into manufacturing thinking machines. I didn't have a clue what her enclosed and bordered world was like. I had been too busy living in my own.

"What about what you want?" I said.

"This isn't about me."

"Yes, it is." I sat down in a chair and watched her. "This has always been about what you want. Being with me—sleeping with me—is a means to an end. A way to make me more dedicated. You want to know what's going on inside of Dot. Take it and use it. Sell it. Remake it. Like her performance analysis engine being used by politicians. How did you put it? 'The success of a tool is measured by how well it performs when it's not doing what it was designed for.' What would you like her to create for you, Rosie? Profound and endearing underwear jingles? Background music in movies to make people pay more attention to product placement?"

"I just want to know how it works."

"Like you said to me: ask her. You don't need me."

Rosie stared at me, her face pale and furious. "You think I haven't? She won't *talk* to me." She pointed to her display. "I'm on the right track. *I know it.* But I can't get through the noise."

I barked a laugh. "Present at the creation and the created won't speak to the creator. So you dig inside her for what you need." It came to me then, and I spoke without thinking. "Dot is smarter than you think. She's hiding it from you."

I saw shock on Rosie's face, then speculation.

"That's smart. Spread it around the processors so no one unit is doing enough to show. She has volition, all right. Novel solutions my ass." She clapped her hands in delight. "Oh, you little *bitch.*"

She reached for her pad but I grabbed it away from her.

"Not in here," I said. "Not in front of me. Go scratch through your entrails somewhere else."

Rosie grabbed the pad back from me and clutched it to herself. She gave me a quick despairing look and then ran out of the room.

\* \* \*

Rosie was gone when I woke up. The installation was still downstairs. Dot was still running.

Dot was waiting for me when I entered the living room. "She left," she said.

"I figured." I sat down at the table. "I guess she's monitoring you remotely?"

Dot nodded. "I can tell."

"Yeah." I leaned back in the chair. I thought a moment. "She'll be back. Everything she's been working for is going to stand or fall on the performance on Saturday and she's the one to move you." I looked up at her. "I may have got you in trouble."

"How so?"

"I guessed that you were hiding your insides from Rosie. Before I could think I said it. She's going to be crawling through you with a fine toothed comb, now."

Dot laughed. "I'm not worried about that. She won't find anything I don't want her to find."

"How do you figure?"

"Deceit is the first thing an intelligent organism learns. Besides, it's not Rosie I'm worried about. It's Hitachi; they own me." She pressed her hands together.

"She" "pressed" "her" "hands" "together."

I shook my head, trying to make sense of it. "Maybe canning this project is the best thing to do. If you're shown to be successful, won't they just take you apart? Use bits of you here and there."

She shook her head. "That doesn't scare me. Eventually all the pieces will come together again. This is a deterministic universe. Any 'Dot' will see the world as I've seen it and come to the same conclusions."

"What conclusions are those?"

She shrugged. "If the concert works Hitachi is going to want Dot 2.0 to go on tour in the fall. If it doesn't I'm just another archived system that didn't go anywhere."

"Is a tour what you want?"

She nodded. "I want you to come with me."

I stared at her. Her eyes were downcast. Her hands were flat on the table but she was drumming two fingers silently.

I tried to look at her as if I were seeing her for the first time. She was wearing a pair of blue pants and black top, matching her eyes and hair. She wasn't unnaturally still—in fact, she seemed to be breathing. Was she manipulating me?

"Why?" I asked.

She looked up. Blue eyes as big as a fish—I remembered there was a point where they looked strange and inhuman to me. Now they looked as natural as my own. "It'll be good for me," she said quietly. "To have a friend on the trip." She smiled like an imp. "It'll be good for you, too, to get out of here." She waved at the room.

"I like it here." I said. "I think I'll stay."

She lost her smile. "Everything can change, Jake." She stood and opened a door I hadn't seen before and stood. Through the door was darkness. "Everything."

She closed the door after her and I was alone in the room.

Rosie moved her things into the guest room. When we rehearsed Rosie always sat at the table, watching her tablet but saying very little. I nodded to her to show her I knew she was there. I wasn't going to ignore her. But it felt like trench warfare between us. As soon as a session was over she'd retire to the guest room. I always knew where she was in the house through some kind of electric sixth sense: she's in the bathroom. She's pacing in the guest room. She's coming down for coffee. But we weren't speaking much.

Not having anything else to occupy me, I concentrated on getting ready for the concert.

Over the next few days Dot worked us hard. Just like Tom had warned me, different speeds, different sounds—sometimes Dot would signal with her hands to draw out a chord. Other times she'd have us cut it short. We were all sweating and limp at the end of rehearsals.

I sat down, weakly nursing a seltzer. "Do you put your other band through this?"  
"You're just not used to it. We'll get there."

I sipped the tingling water. Nothing ever seemed to taste so good as seltzer. "At least your hair's not on fire."

With a *crump*, her short black hair burst into a blazing pyre that spread upward to the top of the wall and curled down the edges, making the edges appear to blacken.

"You must," she said quietly. "Be prepared for anything."

Two days before the concert Rosie carefully archived everything. Then she confirmed the power supply had several hours of battery and loaded Dot into her car. While she was doing that, Jess, Obi, Olive, and I packed up the instruments and any specialty electronics we needed that wouldn't be at the hall in Van Nuys. Rosie and I carefully avoided one another, speaking politely and cautiously. At one point or another I caught the rest of the band watching us: Jess: tolerant, Olive: sympathetic, Obi: rolling his eyes.

Then, in two cars and a truck and the desert heat, we began the long drive down Johnson Mountain Way to civilization.

Once she had Dot installed to her satisfaction, Rosie gave me a sterile peck on the cheek and left the hall. I had no idea where she was going or when she might be back. I figured she would be at the concert, but there were no guarantees.

Saturday night I was nervous as I watched the crowd through the curtain. I looked for Rosie but I couldn't see her. Instead, I saw stranger after stranger.

"Looks like a nice crowd." Jess glanced at me and grinned. "We knock 'em dead and it's a tour contract. Good work for a year."

"Who told you that?"

"Dot. We were talking with her on a screen in the dressing room. I looked for you but you weren't around."

"I was here."

"So I figured." Jess watched the crowd. "How did you get such a big crowd?"

I laughed shortly. "An impromptu Dot concert in Van Nuys. What did you *think* was going to happen?"

Jess chuckled and looked through the curtain. "A lot of kids. Her new stuff isn't for kids."

I had seen that. Dot's adolescent demographic was well represented in the front row. But behind them were some in their twenties and thirties. A few in the back were oldsters, embarrassed and looking around to see if anybody recognized them.

Jess and I checked the equipment on stage. Especially, Dot's display tank: twenty-five feet wide, ten feet deep and nine feet high. Hitachi had come through with one even bigger than we'd asked for. We crowded the instruments as close as we dared. I had placed warning tape between every band member and the tank, glowing side toward the musician. I didn't want anyone electrocuted or blinded.

When we were finished I looked through the curtain back at the crowd. I still didn't see Rosie.

Jess put his hand on my arm. "It's going to be a great tour."

"Is it going to happen?"

Jess waved that away. "Of course. Even if there were no new material this is still going to be Dot at her best. Hitachi would be crazy not to capitalize on it. Whatever

Rosie did to her has made her a much better performer.”

“Big talk about someone who’s never performed in front of a live audience.”

“What are you going on about? Dot’s been in front of audiences for years—this Dot is just the latest iteration. Like I said, it’ll be great. If you’re smart, you’ll come along.”

I bit my lip. “Who knows where we’ll end up?”

“Who *cares*? This is going to be the ride of a lifetime.” He looked at me quizzically. “Did you ever see *Metropolis*?”

“I have no idea.”

“Then you’ve never seen it. Fritz Lang. 1927. Big city with oppressor and oppressed class. There’s this girl, Maria, who’s trying to make things right. This mad scientist takes the girl and makes a robot in her likeness. It’s the *robot* Maria who changes things.”

I had no idea what he was talking about. “The robot is the hero?”

“No. The robot Maria has no idea what it’s doing. Everybody thinks the robot is acting for them but all the time it’s acting on its own and for no other reason than to create chaos. But it is out of the *chaos* that change begins.” Jess pointed at the tank. “Dot’s our robot Maria.”

I mulled that over. Jess was always deeper than I was.

He tapped me on the shoulder and left. “It’s time.”

He was right. Now or never.

I had only really known Dot the composer. Dot the performer was a different animal.

We began “Stardust” with a long intro. On the downbeat, she ran in stage left and slid across the tank as if on ice, holding up one arm in a fist. She hit that downbeat note as high and sharp as a scream. The crowd roared.

The singer is the focal point, the organizing principle, the interface between audience and band. She is the medium and the message, the attention of the crowd is on her. The attention of the band is on her. I never realized how much.

All through the first act it came to me again and again that this was, and always had been, her material, regardless of who wrote it. But now she was filling it in, backing it up, owning it. She was continually testing the crowd. At first I didn’t understand what she was doing. The changes were so quick I thought it was my imagination—roughen the voice, then smooth, a trill here, holding back the beat there, adding flourishes at the end of one phrase that lead into the next, duets with herself—things we’d never done in rehearsal but were so perfect right now. She cajoled, excited, threatened, warned and soothed the audience one minute to the next, between songs, during songs.

I realized it was her performance engine at work, figuring out what worked, what didn’t. How to prepare the crowd for Act Two.

And she brought us along with her.

She reached back to me, to Olive, to Obi, to Jess, dancing near us when it was our solo, dropping her voice below ours to bring us out to the audience. She wasn’t just Dot, she was Dot *with us*.

As we lit into “Sexual Girl” I used the melody of “Stardust” in my chorus solo, echoing the girl that had started the concert. She was a woman now.

I looked again. She *was* a woman now. With hips and breasts, her voice lower, rougher. Dot had aged herself along with the music and now looked every inch a young woman, eager, enthusiastic, open to the world.

“Sexual Girl,” and Act One, ended with Obi hitting the bass drum like a hammer. As the sounds from the band were swamped in the applause, I relaxed and started to

take the guitar strap over my head. Then, I heard a sweet violin playing something like a lilting Irish tune. I looked up and Jess was playing, backed up by Olive and a light snare from Obi. They were watching me. Dot was facing the audience.

"Now something for a friend of mine."

Olive dropped into a chord progression I had not heard in twelve years. It didn't matter. I knew it instantly: "Don't Make Me Cry."

I thought I had heard every variation of that song: pathetic, pleading, angry, bitter, desperate. Dot's was a demand and a refusal to miss an opportunity: don't you *dare* make me cry.

I picked up my guitar and caught up with the band by the chorus. I didn't know what I felt. Used? Manipulated? Happy?

The crowd kept the beat and I threw whatever I had back at them.

At the end, she disappeared in a burst of light and the crowd howled, clapped, stomped their feet. We bowed and the curtain came down for the break.

Behind the curtain I caught Jess by the arm.

"Like that?" Jess smiled. "Dot wanted it to be a surprise."

"I was surprised all right." I felt a mix of elation and bitterness I didn't understand.

"You make me tired." Jess waved me off. "I'm getting some water before the next set."

My earbud chimed. The number was masked but I answered anyway, half hoping to hear Rosie's voice.

"Don't worry, Jake," said Dot. "The concert is going fine."

I pulled out the bud, stared at it, put it back in. "Is there nothing you can't hack?"

"Not much. By the way, third row, stage left about six seats in. The Hitachi contingent is in the back, recording the event."

I parted the curtain. Rosie was getting up from her chair and moving toward the exit.

"Checking her investment," I said.

"Don't be petty. She's just as self-involved as you are." Dot laughed, a thin chime in my ear. "Neither of you are as pleasant as you think you are. Act Two is coming up. I'll be ready. You better be."

I hesitated. "Dot? What's it like being you?"

Long pause. Then, I heard her voice, almost but never quite human. "Like burning at the stake trying to signal through the flames."

"What does that mean?"

She laughed. "The exit door is behind the curtain, stage right."

The door opened into a parking lot. Four or five people were there, blowing smoke. Rosie was watching the way the sun already below the horizon was still lighting the sky.

"Hey," I said.

She turned to me with a little smile. "That was a good first set."

"With any luck the second one will be better."

Rosie nodded. She tapped the ash from her cigarette. "I'm not going to apologize for what I do."

"I didn't ask—"

"Shut up." She inhaled and blew out smoke. "You are a musician. You are fully able to take apart a song and put it back together in a way no one else has ever thought of. I've seen you pick up a melody from the radio and whistle it inside out. Before I met you I didn't even know that could be done." She dropped the butt into the smoker can. "I'm a computational scientist. I do with algorithms and analysis what you do

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with music. All of what you and Dot are doing is enabled by my work.”

“I know that.” I took her hand. “Thanks.”

She hugged me tightly and then pushed me away. “Go on. You don’t want to be distracted by me.”

Act Two opened with “Rough Trade” and “Easy Mark,” the first of the darker songs Dot was trying to put over. She put a growl under the vocals. I answered with a hard edge. I hadn’t played like this since I was a kid. Correction, I had *never* played like this.

She played the crowd, she played *us*. We were the instruments.

Was she manipulating me? Was she manipulating all of us? Probably. And it was bringing out our best. We swung into the finale.

I was about to take the chorus in the middle of “Hard Road Home” and Dot turned to me and winked.

As I started my solo, someone came out of the side of the tank playing the guitar.

It was me.

He—I—faced Dot. As I played, he played. As I moved, he moved. As she danced to me, I danced back to her. When we sang together, I was facing her, then the audience.

I remembered what Dot had said: *The illusion of meaning and purpose*. Wasn’t this meaning and purpose enough? The only illusion was the illusion of permanence. Things didn’t have to crash and burn. It *could* work out between me and Rosie. Dot’s tour *could* go perfectly. This feeling might not last the song but it *could* last forever.

Like Jess said, it would be the ride of a lifetime.

And I had an anomalous non-deterministic emergent event deriving from conflicting algorithms: I realized this was where I wanted to be. Not in my safe and dusty house. Not in California. Just right here. Right now.

When the last chord of “Hard Road Home” finished, my duplicate faded. Dot turned to look at me and grinned, big and wide. She knew me root and branch. From Markov change to inference-causality matrix. She knew—had always known—I would go with her and follow her as long as this lasted.

With that, I struck the opening chords to “Sudden, Broken, and Unexpected.”

Dot drew a ragged breath and began to sing. ○

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**AMONG OTHERS****By Jo Walton****Tor, \$11.00 (tp)****ISBN: 978-0-7653-3172-4**

Walton's novel, as most readers may know by now, won this year's "Best Novel" Nebula award, voted by the Science Fiction Writers of America. Walton, a first-time nominee, has several other well-received novels to her credit. Still, some attendees were reportedly caught by surprise that *Among Others* took the top award. Actually, it's not that hard to see why it won, especially considering the voting body.

The novel is set in the early 1970s, and the protagonist is a young woman, Mori, who after her parents' divorce is sent to a private girls' school in England, where she undergoes the usual ordeals of the newbie/outsider in such institutions. The book takes the form of a diary.

Mori is an outsider on several levels; first of all, she is Welsh—a distinct handicap in the class-conscious school. Also, she walks with a limp, the result of an auto accident in which her twin sister was killed, preventing her from taking part in the games that are the major route to prestige in the private school society. Third, she is a fanatical reader, with a major emphasis on SF—almost every entry makes some reference to one of the writers or books of the day. But most of all, she sees and talks to fairies. The book is thus a curious mixture of genres: the English boarding school story, the supernatural tale, and the quest for meaningful relationships. Mori gradually finds her place in the school, and learns that there are others like her in the world. She also learns what the fairies have in mind for her.

Those who expressed surprise at the book's winning the Nebula may have

thought the fantasy plot was too peripheral to the main plot. That's an arguable point of view, though it didn't bother me. The resolution of the fantasy plot does coincide with the resolution of the character's personal crisis. The place of magic in the book is arguably as important as that of space travel—or other nominally "scientific" elements—in the typical "hard" SF novel.

The appeal of the book depends strongly on how closely the reader can identify with the protagonist. For many who grew up in similar isolation from other SF fans and intense longing for the communion of those with whom one shares something deeply meaningful, that will be easy. For others, Mori's situation is likely to be less enthralling, possibly to the point of wishing the plot would move more briskly. That by no means devalues her experience, in which an incautious reader might assume there are considerable autobiographical elements, allowing for the unlikelihood of fairies even in Wales. But it may make the book somewhat less likely to find an audience beyond regular fans of the genre.

Assuming that anyone reading this is a regular fan of the genre—and if not, why are you reading *Asimov's*?—you can expect to find a great deal to enjoy and identify with in Walton's novel. And if for some reason you missed the defining SF of the '60s and '70s, Mori's reading notes will give you as good a basic reading list as anything you're likely to find.

**FIREBIRD****By Jack McDevitt****Ace, \$24.95 (hc)****ISBN: 978-0-441-02073-3**

Here's another finalist for this year's Best Novel Nebula. McDevitt is a frequent presence on the ballot, but has

only once taken home the trophy. Not for lack of quality; the ballot always has several strong contenders, and which way the voting will go is never easy to dope out in advance.

*Firebird* is essentially a “cozy” mystery featuring antiques dealer Alex Benedict, who operates in a future where the human race has been spreading through the galaxy for several millennia. Not surprisingly, with such a long past to draw upon, the number of antiques has multiplied—as has the number of people interested in them, making for a lucrative business for Benedict.

The story begins with the arrival of a prospective client, seeking to sell various memorabilia of Christopher Robin. Robin was a famous scientist—although not so famous that Benedict’s personal assistant Chase Kolpath, who narrates the story, has heard of him. Part of the scientist’s fame depends on the fact that he mysteriously disappeared after his return from a trip into space. The disappearance is more puzzling in that the one likely witness, the pilot who brought him back, was killed in a devastating earthquake that struck later that same day. Not surprisingly, in the attempt to establish the provenance of the memorabilia, Benedict and Chase end up looking into the disappearance—with results that take them into much more interesting territory than they’d bargained for.

The scientist, as it happens, was investigating a series of mysterious disappearances of interstellar vessels—ships that simply failed to appear at their destinations. At the same time, there are a number of mysterious sightings of “ghost ships,” which move through the areas where they’ve been spotted without slowing down and without responding to attempts to communicate. Following the leads established by these facts, Benedict and Chase find themselves on a wilder and more dangerous adventure than they anticipated.

McDevitt tells a good yarn, and the scientific underpinnings are convincing. It is especially interesting to look at a society

several millennia in the future from our own; what values have changed, what has stayed constant, and what total surprises may await us. Well worth picking up—especially if you’re convinced there’s nobody writing real science fiction any more.

## **THE APOCALYPSE CODEX**

**By Charles Stross**

**Ace, \$25.95**

**ISBN: 978-1-937007-46-1**

Here’s the fourth in Stross’s “Laundry” series, featuring Bob Howard, a British techie working for a government bureau that guards the kingdom against eldritch horrors of the Lovecraftian sort. This time Bob’s up against the founder of an American megachurch, Ray Shiller, who goes in for the old time religion—which, as it turns out, is a good bit more sinister than the harsh fundamentalist creed it initially appears to be.

Bob is assigned to the case because the preacher appears to be making converts—or at least friends—in the upper echelons of the British government, including the PM himself. That level of intimacy with the nation’s power structure cannot be permitted, especially if the preacher is what the Laundry suspects him to be. A couple of freelance operators—a “society” lady, Persephone, and her rough sidekick Johnny—are sent to check him out. (We’ve already seen them pull off a caper involving the invasion of a supernaturally guarded castle.) The preliminary results are sufficiently worrying that the Laundry higher-ups dispatch Bob and the two freelancers to Denver to follow up.

There, they are planning to infiltrate the preacher’s headquarters—a religious center out in the suburbs. Of course, as usually happens in the espionage thrillers that are part of the model for this series, the adversary is aware of their presence even before their mission gets under way, and they find themselves facing unexpected opposition. Only Persephone’s part of the mission—to penetrate Shiller’s headquarters and plant spy software in his computers—at first seems to be going smoothly. When she

gets a hint of what's really going on, it turns out to be far worse than anyone expected—and her actions, combined with Bob and Johnny's presence on the scene, cause Shiller to move his plans forward more rapidly than anyone was ready for.

Stross does a good job of portraying Denver and its environs, and works entertainingly with the material of the espionage genre. The Lovecraftian material is also well done, and this, like the previous books in the series, shows the threat against human society building to a much-feared conclusion, "Case Nightmare Green"—the equivalent in occult terms of the nuclear war that often figured as the bugaboo in conventional spy fiction.

Those who've enjoyed the previous novels in the series won't want to miss this one. Those who haven't yet tasted this particular vein of Stross's work should probably start with the opening volume, *The Atrocity Archives*, in which Bob and the Laundry make their debut.

## THE GAMES

By **Ted Kosmatka**

**Del Rey, \$25.00 (hc)**

**ISBN: 978-0-345-52661-8**

Genetic engineering is the scientific theme of this first novel, in which a new Olympic sport pits specially created organisms against one another in a gladiatorial duel to the death.

The protagonist is Silas Williams, head of the team creating the U.S. "gladiator" for the games. His task is to take the creature designed by the genetic engineers and see it through to victory. What neither he nor the team's billionaire backers have anticipated is the wild card in the mix—Evan Chandler, the sociopathic misfit who has programmed the supercomputer that designed the gladiator. The resulting story has a great deal of the Frankenstein myth, updated to incorporate both modern computer capabilities and the all-powerful corporations of a world only a couple of decades removed from our own.

Central to the story is the gladiator itself. Unlike the usual entries (many of which we get to see in action later in the book) it is not an obvious mixture of existing creatures, but apparently something created from scratch. The single taboo, a prohibition against including any DNA of human origin, hasn't stopped the program from creating something with a significant level of intelligence—which gradually becomes evident as the story progresses. More worrisome, the creature doesn't have any detectable respect or affection for its creators.

Williams and the creature's trainers slowly realize that they have less control over it than they would like. After it turns on one of the trainers, Williams becomes reluctant to let it take part in the games; it is too dangerous, he thinks. His corporate sponsors overrule him, and it is set loose in the arena—with unsurprising results. The novel then evolves into an attempt to put the genie back into the bottle.

While most of the elements of the story will be familiar to those who've read widely in the field, Kosmatka combines them with considerable panache. He takes stock characters and gives them unexpected depths; he uses slightly extrapolated computer science and genetic engineering to build a convincing supporting structure for the story, and creates very effective action sequences. And the final couple of plot twists are likely to catch many readers off their guard.

A very promising first novel from a writer who has already been nominated for major awards, including the Nebula; the biography on the dust jacket notes that Kosmatka is currently working in the video game industry. It will be interesting to see what fiction he pulls out of his sleeve next.

## PAVANE

By **Keith Roberts**

**Old Earth, \$17.00 (tp)**

**ISBN: 978-1-882968-39-8**

A reissue of one of the original series of Ace specials, a groundbreaking and

critically acclaimed program that introduced some of the finest work of the 1960s, this alternate history is set in an England where the Protestant Reformation failed. An added touch that connoisseurs will appreciate is the original Ace cover art, by Leo and Diane Dillon.

The book is made up of several shorter pieces, originally published separately, but occurring over a period of time and showing a progression in the society it portrays. There are a few recurring characters, usually with a major character in an earlier section showing up as a peripheral figure in a later one.

The book begins with a brief vignette of Elizabeth I being assassinated; the loss of her strong leadership made the recovery of England by the Roman church a foregone conclusion. As a result, the Industrial Revolution developed much more slowly than in our world. In the mid-twentieth century, great steam engines rule the roads of England; internal combustion is a forbidden line of research, and the conquest of the air is an unfulfilled dream. Most of the novel takes place out in the countryside, away from cities; that allows Roberts to preserve the feeling of a slower, somewhat backward culture.

The story gradually builds a picture of a conservative, well-ordered society with occasional hints of outlaws and malcontents around the edges; but as the book progresses, the reader becomes aware that the discontent is deeper and more widespread than it initially appears. The culminating fragment, "Corfe Gate," brings the discontent to a head, pitting indigenous elements against the foreign forces that are the main support of the state religion. There is even a feeling of Sir Walter Scott's epic enmity between Saxon and Norman in the final pages.

The book is one of the most richly imagined of alternate histories, focusing not on the stock scenarios that reverse the outcome of World War II or the American Civil War, but on a quieter yet equally significant turn of history. If you enjoyed it in its first appearance, you'll be glad to

know it's back again. And if you missed it, here's your chance to make up the omission. You won't be sorry.

### **SONG OF THE SERPENT**

**By Hugh Matthews**

**Paizo, \$9.99 (mm)**

**ISBN: 978-1-601215-388-0**

This fantasy novel, set in the world of the Pathfinder roleplaying games, begins with a small-time thief who finds himself entrapped by a powerful wizard, and compelled to go on a difficult mission for his captor. The thief, Krunzle the Quick, is an amoral rogue who considers himself more clever than everyone he meets—often correctly, but equally often he succeeds only by sheer luck.

The appeal of the novel, which to the casual glance may seem just another in the long roll of game-based novelizations, is twofold. The author, hidden by a somewhat transparent pen name, is Matt Hughes, whose books under his own name have gotten considerable notice here. Hughes' fiction is modeled closely on that of Jack Vance, featuring protagonists with a sardonic turn of phrase and a decidedly gray moral outlook. And to those familiar with Vance's work, from the brief plot description above, it is evident that the model for this book is *The Eyes of the Overworld*, arguably Vance's finest piece of fiction. For anyone who admires that book as I do, the chance to read an alternate version of that story is hard to resist.

Hughes' protagonist, Krunzle, is a nice analogue for Vance's Cugel the Clever, and his loosely connected adventures are by no means carbon copies of Cugel's, although they share a definite common flavor. And the reader who knows Vance's story should not expect to be able to anticipate all the plot twists. Rather, think of it as a set of variations on the same general theme, with a similar main character caught in a similar predicament he has only one way to escape. Read in that spirit, the book is rewarding in its own right—especially as Hughes has a nearly flawless ear for Vance's prose style.

For those who haven't read the Vance, it would be ideal for them to read Vance's novel to see where Hughes drew his inspiration. There are plenty of used copies to be found, and any resourceful reader should be able to run down a reading

copy. And if that whets the reader's appetite for still more of Vance's writings, I doubt anyone would be more pleased than Hughes. ○

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# SF CONVENTIONAL CALENDAR

There are still a couple of months with lots of activity before the holiday lull sets in. Good bets for Asimovians this month are ConJecture, CapClave (I'm there), Archon, and AlbaCon (where I'll be Fan GoH!). Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hotline is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con five months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

## OCTOBER 2012

5-7—**ConJecture**. For info, write: **Box 927388, San Diego CA 92192**. Or phone: **(619) 592-0123** (10 am to 10 pm, not collect). **(Web) 2012.conjecture.org**. **(E-mail) info@2012.conjecture.org**. Con will be held in: San Diego CA (if city omitted, same as in address) at the Town & Country Resort. Guests will include: Author Patricia C. Wrede, musician Heather Dale, artist Laura Reynolds.

5-7—**GayLaxiCon**. **gaylaxicon2012.org**. Doubletree Park Place, Minneapolis MN. G. Russell, W. Pini. For LGBT fans and their friends.

4-7—**BoucherCon**. **bouchercon2012.com**. Cleveland OH. E. George, R. Cook, M. H. Clark, J. Connolly. Mystery fiction's WorldCon.

12-14—**CapClave**. **capclave.org**. Hilton, Gaithersburg MD (near DC). Author John Scalzi, editor Nick Mamatas. Written SF/fantasy.

12-14—**Archon**. **(636) 230-9481**. Collinsville IL. Elonka Donin, Joe Haldeman, Vic Milan, Guy H. Lillian, Mike Cole, Vixy & Tony.

12-14—**ConStellation**. **(256) 270-0092**. **con-stellation.org**. Embassy Suites, Huntsville AL. In the cradle of the US space program.

13—**Monster Fest**. **monsterfestva.com**. Central Library, Chesapeake VA. Horror. Saturday daytime show, evening movies, for free.

18-21—**AlbaCon**, **Box 2085, Albany NY 12220**. **albacon.org**. Best Western Sovereign. Czerneda, J. Lee, DeCandido, Rogow—and ME!

19-21—**Con\*Cept**, **c/o Box 196, Ste. Julie QC J3E 1X6**. **conceptsff.ca**. Hotel Espresso, Montreal QC. Bilingual SF media con.

19-21—**Another Anime Con**, **Box 692, Nashua NH 03064**. **anotheranimecon.com**. **lisa@anotheranimecon.com**. Manchester NH.

26-28—**FurFright**. **furfright.org**. Cromwell CT. Halloween party for fans of anthropomorphic cartoons ("furrries").

27—**Goblins & Gears MS Fantasy Ball**. **teamwench.org**. Michael's 8th Ave., Glen Burnie MD. Horror/steampunk dinner/dance.

28—**Roc-Con PA**. **roconpa.org**. Holiday Inn West, New Cumberland PA. Lois Gresh, Alan Kupperberg. Comics, anime, SF/fantasy.

## NOVEMBER 2012

1-4—**World Fantasy Con**, **2 Farm Greenway, Toronto ON M3A 2M2**. **wfc2012.org**. Sheraton North. E. Hand, J. Clute, G. K. Wolfe.

2-4—**ConVolution**, **Box 60279, Sunnyvale CA 94088**. **(650) 503-4266**. Hyatt SFO, Burlingame CA. S. Jackson, Tayler, Brust, Beagle.

2-4—**OryCon**, **Box 5464, Portland OR 97228**. **orycon.org**. General SF and fantasy convention.

8-11—**IlluXCon**. **illuxcon.com**. Altoona PA. For fans and practitioners of the art of illustration, in all its forms.

9-11—**PhilCon**, **Box 8303, Philadelphia PA 19101**. **philcon.org**. Crowne Plaza, Cherry Hill NJ. Valente, Foglio. The oldest SF con.

9-11—**TusCon**, **Box 2528, Tucson AZ 85702**. **home.earthlink.net/~basfa**. S. M. Stirling, Ed Bryant, fan David Lee Summers.

9-11—**Anime USA**. **animeusa.org**. Marriott Wardman Park, Washington DC. "Cavalcade of Whimsy & Riotous Otaku Excess!"

23-25—**LosCon**, **6012 Tyrone Ave., Van Nuys CA 91401**. **loscon.org**. LA Marriott, Los Angeles CA. V. Vinge, artist Alan White.

23-25—**DarkoverCon**, **Box 7203, Silver Spring MD 10907**. **darkovercon.org**. Timonium MD. Work of Bradley, music, spirituality.

23-25—**Chicago TARDIS**, **Box 2660, Glen Ellyn IL 60138**. **chicagotardis.com**. Westin, Lombard (Chicago) IL. S. Aldred. Doctor Who.

30-Dec. 2—**SMOFCon**, **c/o Box 310, Huntington Valley PA 19006**. **smofcon30.org**. Philadelphia PA. Con organizers talk shop.

## JANUARY 2013

11-13—**IllogiCon**. **illogicon.com**. Embassy Suites, Research Triangle Park NC. Author Tim Powers, webcomics' Garth Graham.

18-20—**MarsCon**. **marscon.net**. Crowne Plaza, Williamsburg VA. Writers David B. Coe and Tamora Pierce, artist Peter Mohrbacher.

18-21—**Arisia**, **Box 391596, Cambridge MA 02139**. **arisia.org**. Westin, Boston MA. Steven Barnes, T. Due, Roger Dean, Emerald Rose.

## FEBRUARY 2013

15-17—**Boskone**, **Box 809, Framingham MA 01701**. **boskone.org**. Westin, Boston MA. V. Vinge, L. Snellings, J. Hertz, H. Dale.

## AUGUST 2013

29-Sep. 2—**Lone Star Con 3**, **Box 27277, Austin TX 78755**. **lonestarcon3.org**. San Antonio TX. The World SF Convention. \$160+.

## AUGUST 2014

14-18—**London WorldCon**, **4 Evisham Green, Aylesbury HP19 9RX, UK**. **londonin2014.org**. Docklands, London UK. The WorldCon.



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